

| ID |  | WBS    | Task Name  | Contact      | Resource Initials | Duration        |  |
|----|--|--------|--|--------------|-------------------|-----------------|--|
| 0  |  |        | <b>D0 Grid Production Computing Initiative</b>   | ehnlein      |                   | <b>169 days</b> |  |
| 1  |  | 1      | <b>D0 Grid Production Architecture</b>   | AL           |                   | 73 days         |  |
| 2  |  | 1.1    | INPUT: Original architecture document v1.2   | AL           | AL                | 0 days          |  |
| 3  |  | 1.2    | High-level Architecture Document: draft - APIs, component responsibilities                 | AL           | ASB,AL            | 7 days          |  |
| 4  |  | 1.3    | milestone: Draft High-level Architecture Document  | AL           | AL                | 0 days          |  |
| 5  |  | 1.4    | High-level Architecture Document: Review   | AL,G,RDK,ASB |                   | 5 days          |  |
| 6  |  | 1.5    | High-level Architecture Document: Revised version  | AL           | AL                | 8 days          |  |
| 7  |  | 1.6    | High-level Architecture Document: Approval - ASB   | AL           | RDK               | 4 days          |  |
| 8  |  | 1.7    | High-level Architecture Document: Approval - VW  | AL           | RDK               | 1 day           |  |
| 9  |  | 1.8    | MILE 7: D0 Grid Production Architecture document done                                      | AL           |                   | 0 days          |  |
| 10 |  | 2      | <b>Adjust Responsibilities among SamGrid, D0runjob, D0repro, automc tools</b>              | GG           |                   | 154 days        |  |
| 11 |  | 2.1    | INPUT: Review of D0runjob interface  | PM           | PM                | 0 days          |  |
| 12 |  | 2.2    | <b>Decouple D0runjob macro and SamGrid</b>   | GG           |                   | 4 days          |  |
| 13 |  | 2.2.1  | INPUT: Interface changes documented  | GG           | PM                | 0 days          |  |
| 14 |  | 2.2.2  | Decouple D0runjob macro and SamGrid development work                                       | GG           | PL                | 1 day           |  |
| 15 |  | 2.2.3  | Decoupling: MC Job Type: SamGrid Integration   | GG           | PM                | 3 days          |  |
| 16 |  | 2.3    | <b>Ability to store output at any stage on demand</b>                                      | GG           |                   | 146 days        |  |
| 17 |  | 2.3.1  | Store output from any stage: SamGrid development/integration                               | GG           | PM                | 1 day           |  |
| 18 |  | 2.3.2  | Store output from any stage: Describe suitable test of feature                             | GG           | PM                | 2 days          |  |
| 19 |  | 2.3.3  | Store output from any stage: Create/submit requests to test feature                        | GG           | MRQ               | 3 days          |  |
| 20 |  | 2.3.4  | Store output from any stage: Production-level test   | GG           | JS                | 3 days          |  |
| 21 |  | 2.3.5  | MILE 22: Store output from any stage of processing   | GG           |                   | 0 days          |  |
| 22 |  | 2.4    | <b>Start Prod via SAM Definition from Stage 2 of Prod: v1</b>                              | GG           |                   | 30 days         |  |
| 23 |  | 2.4.1  | INPUT: Start Prod at Stage 2: D0runjob development   | GG           | PL                | 0 days          |  |
| 24 |  | 2.4.2  | Start Prod at Stage 2: SamGrid development/integration                                     | GG           | PM                | 21 days         |  |
| 25 |  | 2.4.3  | Start Prod at Stage 2: Production-level test   | GG           | JS                | 3 days          |  |
| 26 |  | 2.4.4  | MILE 2: Start (MC) Production at Stage 2 - Working   | GG           |                   | 0 days          |  |
| 27 |  | 2.5    | <b>Error Recovery in Phased Processing</b>   | GG           |                   | 35 days         |  |
| 28 |  | 2.5.1  | Error Recovery: SamGrid development/integration  | GG           | PM                | 1 day           |  |
| 29 |  | 2.5.2  | Error Recovery: Production-level test  | GG           | JS                | 5 days          |  |
| 30 |  | 2.5.3  | milestone: Error Recovery in Phased Processing   | GG           |                   | 0 days          |  |
| 31 |  | 2.6    | <b>D0repro tools adapted to use Sam v7 request system</b>                                  | GG           |                   | 115 days        |  |
| 32 |  | 2.6.1  | D0repro tools adaptation: First 50% implementation   | DW           | DW                | 40 days         |  |
| 33 |  | 2.6.2  | D0repro tools adaptation: Next 40% implementation  | DW           | DW                | 32 days         |  |
| 34 |  | 2.6.3  | D0repro tools adaptation: Request impact on SamGrid and/or D0runjob                        | GG           | RDK,GG            | 4 days          |  |
| 35 |  | 2.6.8  | D0repro tools adaptation: Fix python interface to SAM request system                       | AL           | SS                | 12 days         |  |
| 36 |  | 2.6.9  | D0repro tools adaptation: Final 10% implementation   | DW           | DW                | 8 days          |  |
| 37 |  | 2.6.4  | D0repro tools adaptation: Use generic runjob interfaces in Samgrid for data processing App | GG           | PM                | 14 days         |  |
| 38 |  | 2.6.10 | D0repro tools adaptation: Define test dataset  | GG           | MD                | 1 day           |  |
| 39 |  | 2.6.11 | D0repro tools adaptation: Production test  | GG           | PM,MD             | 4 days          |  |
| 40 |  | 2.6.5  | D0repro tools adaptation: Adjust D0runjob to use request system                            | GG           | PL                | 15 days         |  |
| 41 |  | 2.6.6  | D0repro tools adaptation: MC Production test   | GG           | JS                | 2 days          |  |

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| 42 | 2.6.7   | MILE 14: D0repro-tools uses Sam v7 request system                    | GG      |                   | 0 days   |
| 43 | 2.7     | <b>Resolve how to add production paths in future</b>                 | GG      |                   | 13 days  |
| 44 | 2.7.1   | Generalization of Job Types according to I/O Characteristics         | GG      | PM                | 5 days   |
| 45 | 2.7.2   | Resolve how to add production paths in future: Document              | GG      | PM                | 5 days   |
| 46 | 2.7.3   | Resolve how to add production paths in future: D0 Approval           | GG      | ASB               | 3 days   |
| 47 | 2.7.4   | MILE 20: How to add production paths in future - resolved            | GG      |                   | 0 days   |
| 48 | 2.8     | <b>Support testing v7/d0runjob/SamGrid functionality</b>             | GG      |                   | 82 days  |
| 49 | 2.8.1   | Survey current understanding of testing procedures                   | GG      | RDK               | 6 days   |
| 50 | 2.8.2   | D0GPCI FNAL testing meeting  | GG      |                   | 1 day    |
| 51 | 2.8.3   | Testing responsibilities, procedures proposal                        | GG      | GG                | 12 days  |
| 52 | 2.8.4   | Agreement on Component and Integration testing                       | GG      | GG,PL             | 8 days   |
| 53 | 2.8.5   | Evaluate how D0runjob should set up WN environment                   | GG      | AB2               | 4 days   |
| 54 | 2.8.6   | D0runjob sets up its own environment                                 | GG      | PL                | 6 days   |
| 55 | 2.8.7   | Evaluate and sign-off on test facilities and procedures              | GG      | /PL,DW,JS         | 5 days   |
| 56 | 2.8.8   | MILE 18: Support testing v7/d0runjob/SamGrid functionality           | GG      |                   | 0 days   |
| 57 | 2.9     | <b>Start Prod via SAM Definition from Stage 2 of Prod: v2</b>        | GG      |                   | 12 days  |
| 58 | 2.9.1   | Start Prod at Stage 2: SamGrid notification-all bug fix              | GG      | PM                | 10 days  |
| 59 | 2.9.2   | Start Prod at Stage 2: Production-level re-test                      | GG      | JS                | 2 days   |
| 60 | 2.9.3   | <b>milestone: Start Prod at Stage 2 Ready for Production Release</b> | GG      |                   | 0 days   |
| 61 | 2.10    | <b>Evaluate Extensions to Development</b>                            | GG      |                   | 16 days  |
| 62 | 2.10.1  | D0runjob/SamGrid Decoupling: Skim Job Type                           | GG      |                   | 0 days   |
| 63 | 2.10.2  | D0runjob/SamGrid Decoupling: Reco Job Type                           | GG      |                   | 0 days   |
| 64 | 2.10.3  | D0runjob/SamGrid Decoupling: Merge Job Type                          | GG      |                   | 0 days   |
| 65 | 2.10.4  | Start Prod via SAM Definition from Stage 3+ of Prod                  | GG      |                   | 0 days   |
| 66 | 2.10.5  | Fabric interface no longer dependent on Job Type                     | GG      |                   | 0 days   |
| 67 | 2.10.6  | All merge code into D0runjob   | PL      |                   | 0 days   |
| 68 | 2.10.7  | Write evaluation of extensions to development                        | GG      | GG                | 16 days  |
| 69 | 2.11    | MILE 26: Tools have defined API, testing responsibilities            | GG      |                   | 0 days   |
| 70 | 3       | <b>Transition Operations Support from SamGrid Dev to Run2 Ops</b>    | GG,AL   |                   | 162 days |
| 71 | 3.1     | <b>Operations Documentation</b>                                      | AL      |                   | 145 days |
| 72 | 3.1.1   | <b>Data Queues Doc</b>   | AL      |                   | 67 days  |
| 73 | 3.1.1.1 | INPUT: Data Queues Doc: Recent Draft                                 | AL      | AB2               | 0 days   |
| 74 | 3.1.1.2 | Data Queues Doc: Feed-back, update                                   | AL      | AB3,AB2           | 5 days   |
| 75 | 3.1.1.3 | Data Queues Doc: Approve   | AL      | AL                | 5 days   |
| 76 | 3.1.1.4 | Data Queues Doc: Integrate into SamGrid Documentation                | AL      | DZ,AL             | 1 day    |
| 77 | 3.1.1.5 | <b>milestone: Data Queues Doc: Completed</b>                         | AL      |                   | 0 days   |
| 78 | 3.1.2   | <b>Forwarding Node Installation Doc</b>                              | AL      |                   | 68 days  |
| 79 | 3.1.2.1 | INPUT: Fwd Node Install Doc: Recent Draft                            | AL      | DZ                | 0 days   |
| 80 | 3.1.2.2 | Fwd Node Install Doc: Hardware prep attempt                          | AL      | SS                | 25 days  |
| 81 | 3.1.2.3 | Fwd Node Install Doc: Feed-back                                      | AL      | SS                | 5 days   |
| 82 | 3.1.2.4 | Fwd Node Install Doc: Integrate Dehong and Steve's documents         | AL      | DZ,SS             | 5 days   |
| 83 | 3.1.2.5 | Fwd Node Install Doc: Approve  | AL      | AL                | 1 day    |

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| 84  | ✓ | 3.1.2.6 | Fwd Node Install Doc: Integrate into SamGrid Installation Manual            | AL      | DZ                | 2 days   |  |
| 85  | ✓ | 3.1.2.7 | milestone: Fwd Node Install Doc: Completed                                  |         | AL                | 0 days   |  |
| 86  | ✓ | 3.1.3   | <b>Integrating SRM Storage with SAM Doc</b>                                 | GG      |                   | 7 days   |  |
| 87  | ✓ | 3.1.3.1 | SRM with SAM Doc: Integrate into SamGrid Documentation                      | GG      | AB2               | 7 days   |  |
| 88  | ✓ | 3.1.3.2 | milestone: SRM with SAM Doc: Completed                                      | GG      |                   | 0 days   |  |
| 89  | ✓ | 3.1.4   | <b>Operations Policies Doc</b>  | AL      |                   | 100 days |  |
| 90  | ✓ | 3.1.4.1 | Operations Policies doc: Draft  | AL      | AL                | 1 day    |  |
| 91  | ✓ | 3.1.4.2 | Operations Policies doc: Review   | AL      | GG,RDK            | 5 days   |  |
| 92  | ✓ | 3.1.4.3 | Operations Policies doc: Revised version                                    | AL      | AL                | 12 days  |  |
| 93  | ✓ | 3.1.4.4 | Operations Policies doc: Review, agreement                                  | AL      |                   | 7 days   |  |
| 94  |   | 3.1.4.5 | Operations Policies doc: Final version                                      | AL      | AL                | 6 days   |  |
| 95  |   | 3.1.4.8 | Operations Policies doc: Stakeholder Review                                 | AL      | MD                | 10 days  |  |
| 96  |   | 3.1.4.6 | Operations Policies doc: Approve - CD, D0                                   | AL      | ASB,RDK           | 5 days   |  |
| 97  |   | 3.1.4.7 | MILE 13: Grid Production Operations Policies doc done                       | AL      |                   | 0 days   |  |
| 98  |   | 3.1.5   | milestone: Operations Documentation completed                               | AL      |                   | 0 days   |  |
| 99  | ✓ | 3.2     | <b>Operations Reduction and Transfer Planning</b>                           | GG,AL   |                   | 68 days  |  |
| 100 | ✓ | 3.2.1   | <b>Current Operations Description</b>                                       | GG      |                   | 33 days  |  |
| 101 | ✓ | 3.2.1.1 | INPUT: Write-up of operations issues  | GG      | GG                | 0 days   |  |
| 102 | ✓ | 3.2.1.2 | Current Operations description: draft - level and causes                    | GG      | GG                | 4 days   |  |
| 103 | ✓ | 3.2.1.3 | Current Operations description: Review                                      | GG      | PM,RDK,AL         | 5 days   |  |
| 104 | ✓ | 3.2.1.4 | Current Operations description: Revised version                             | GG      | GG                | 2 days   |  |
| 105 | ✓ | 3.2.1.5 | Current Operations description: Approve                                     | GG      | ASB               | 1 day    |  |
| 106 | ✓ | 3.2.1.6 | milestone: Current Operations description                                   | GG      |                   | 0 days   |  |
| 107 | ✓ | 3.2.2   | <b>Future Operations Staffing Doc</b>                                       | AL      |                   | 13 days  |  |
| 108 | ✓ | 3.2.2.1 | INPUT: FY08 REX budget determined   | RS      | RS,AL             | 0 days   |  |
| 109 | ✓ | 3.2.2.2 | Future Operations description: draft - acceptable load level and activities | AL      | RS,AL             | 6 days   |  |
| 110 | ✓ | 3.2.2.3 | Future Operations description: Review                                       | AL      | G,RDK,ASB         | 5 days   |  |
| 111 | ✓ | 3.2.2.4 | Future Operations description: Approve                                      | AL      | ASB               | 2 days   |  |
| 112 | ✓ | 3.2.2.5 | milestone: Future Operations description                                    | AL      |                   | 0 days   |  |
| 113 | ✓ | 3.2.3   | <b>Operations Reduction Plan: "Road To Operations"</b>                      | GG      |                   | 60 days  |  |
| 114 | ✓ | 3.2.3.1 | INPUT: Operations Reduction plan: Monitoring, Alarms proposal               | GG      | AB2               | 0 days   |  |
| 115 | ✓ | 3.2.3.2 | Operations Reduction plan: Overall draft                                    | GG      | GG                | 16 days  |  |
| 116 | ✓ | 3.2.3.3 | Operations Reduction plan: Review   | GG      | SB,RDK,AL         | 5 days   |  |
| 117 | ✓ | 3.2.3.4 | Operations Reduction plan: Revised version                                  | GG      | GG,AB2            | 10 days  |  |
| 118 | ✓ | 3.2.3.5 | MILE 4: Operations Reduction plan: Working plan ready                       | GG      |                   | 0 days   |  |
| 119 | ✓ | 3.2.3.6 | Operations Reduction plan: Coordinate w/FEF                                 | GG      | GG                | 10 days  |  |
| 120 | ✓ | 3.2.3.7 | Operations Reduction plan: Approve - CD, D0                                 | GG      | ASB,RDK           | 2 days   |  |
| 121 | ✓ | 3.2.3.8 | milestone: Operations Reduction plan completed                              | GG      |                   | 0 days   |  |
| 122 | ✓ | 3.2.4   | milestone: Operations Reduction and Transfer Planning completed             | GG      |                   | 0 days   |  |
| 123 | ✓ | 3.3     | <b>Operations Transfer Execution</b>  | GG,AL   |                   | 95 days  |  |
| 124 | ✓ | 3.3.1   | <b>Operations Transfer: Phase 1 (Checklist)</b>                             | GG,AL   |                   | 18 days  |  |
| 125 | ✓ | 3.3.1.1 | SamGrid Requests to Sam Issue Tracker                                       | GG,AL   |                   | 2 days   |  |

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| 126 | ✓   | 3.3.1.1.1     |              | GG,AL             | GG              |
| 127 | ✓   | 3.3.1.1.2     |              | GG,AL             | 1 day           |
| 128 | ✓   | 3.3.1.1.3     |              | GG,AL             | 0 days          |
| 129 | ✓   | 3.3.1.2       | <b>GG</b>    |                   | <b>8 days</b>   |
| 130 | ✓   | 3.3.1.2.1     | GG           | PM                | 1 day           |
| 131 | ✓   | 3.3.1.2.2     | GG           | GG,AL             | 3 days          |
| 132 | ✓   | 3.3.1.2.3     | GG           | PM                | 3 days          |
| 133 | ✓   | 3.3.1.2.4     | GG           | PM,AL             | 0.5 days        |
| 134 | ✓   | 3.3.1.2.5     | GG           | PM                | 0.5 days        |
| 135 | ✓   | 3.3.1.2.6     | GG           |                   | 0 days          |
| 136 | ✓   | 3.3.1.3       | <b>AL</b>    | <b>AL,GG</b>      | <b>9 days</b>   |
| 137 | ✓   | 3.3.1.3.1     | AL           | AL                | 5 days          |
| 138 | ✓   | 3.3.1.3.2     | AL           | GG,AB2            | 4 days          |
| 139 | ✓   | 3.3.1.3.3     | AL           |                   | 0 days          |
| 140 | ✓   | 3.3.1.4       | GG,AL        |                   | 0 days          |
| 141 | ✓    | 3.3.2         | <b>GG,AL</b> |                   | <b>15 days</b>  |
| 142 | ✓   | 3.3.2.1       | GG,AL        | DEV,REX           | 15 days         |
| 143 | ✓   | 3.3.2.2       | GG,AL        | DEV,REX           | 15 days         |
| 144 | ✓   | 3.3.2.3       | GG,AL        |                   | 0 days          |
| 145 | ✓    | 3.3.3         | <b>GG,AL</b> |                   | <b>15 days</b>  |
| 146 | ✓   | 3.3.3.1       | GG,AL        | DEV,REX           | 15 days         |
| 147 | ✓   | 3.3.3.2       | GG,AL        | DEV,REX           | 15 days         |
| 148 | ✓   | 3.3.3.3       | GG,AL        |                   | 0 days          |
| 149 | ✓    | 3.3.4         | <b>GG,AL</b> |                   | <b>15 days</b>  |
| 150 | ✓   | 3.3.4.1       | GG,AL        | DEV,REX           | 15 days         |
| 151 | ✓   | 3.3.4.2       | GG,AL        | DEV,REX           | 15 days         |
| 152 | ✓   | 3.3.4.3       | GG,AL        |                   | 0 days          |
| 153 | ✓   | 3.3.5         | GG,AL        |                   | 0 days          |
| 154 | ✓   | 3.4           | <b>GG</b>    |                   | <b>63 days</b>  |
| 155 | ✓   | 3.4.1         | GG           | PM                | 8 days          |
| 156 | ✓   | 3.4.2         | GG           | PM                | 2 days          |
| 157 | ✓   | 3.4.3         | GG           | PM                | 26 days         |
| 158 | ✓   | 3.4.5         | GG           |                   | 0 days          |
| 159 |    | 3.5           | <b>GG</b>    |                   | <b>113 days</b> |
| 160 |    | 3.5.1         | <b>GG</b>    |                   | <b>105 days</b> |
| 161 | ✓  | 3.5.1.1       | GG           | GG,AL             | 8 days          |
| 162 |   | 3.5.1.2       | <b>GG,AL</b> |                   | <b>97 days</b>  |
| 163 | ✓  | 3.5.1.2.1     | GG           | PM                | 2 days          |
| 164 |   | 3.5.1.2.2     | <b>GG</b>    |                   | <b>95 days</b>  |
| 165 | ✓  | 3.5.1.2.2.1   | GG           | FEF               | 16 days         |
| 166 | ✓   | 3.5.1.2.2.2   | <b>GG</b>    |                   | <b>20 days</b>  |
| 167 | ✓   | 3.5.1.2.2.2.1 | GG           | FEF               | 5 days          |

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| 168 | ✓   | 3.5.1.2.2.2.2   | Developers install and test candidate fwd node (by Fri Oct 26)                  |  | GG      | PM                | 3 days   |
| 169 | ✓   | 3.5.1.2.2.2.4   | Adjust current software to use standard location as default                     |  | GG      | PM                | 1 day    |
| 170 | ✓    | 3.5.1.2.2.2.3   | Adjust current installation instructions  |  | GG      | PM                | 1 day    |
| 171 | ✓   | 3.5.1.2.2.2.5   | REX ops re-installs on candidate machine  |  | AL      | SS                | 1 day    |
| 172 | ✓   | 3.5.1.2.2.2.7   | Admins and REX ops configure production fwd node                                |  | AL      | FEF,SS            | 1 day    |
| 173 | ✓    | 3.5.1.2.2.2.6   | Switch candidate machine and d0srv047 (fwd + station) (Nov 6)                   |  | AL      | SS                | 1 day    |
| 174 | ✓   | 3.5.1.2.2.2.9   | Diagnose, resolve, document 32-bit/64-bit compatibility issues                  |  | GG,AL   | PM,SS             | 4 days   |
| 175 | ✓   | 3.5.1.2.2.2.8   | MILE 11: Forwarding Node w/Sam Station Reinstalled with std config              |  | GG      |                   | 0 days   |
| 176 | ✓   | 3.5.1.2.2.3     | INPUT: Test of fail-over in production environment                              |  | GG      | PM                | 0 days   |
| 177 |   | 3.5.1.2.2.4     | <b>Reinstall Forwarding Node 2</b>  |  | AL      |                   | 22 days  |
| 178 | ✓   | 3.5.1.2.2.4.1   | REX ops drains and take production fwd node offline (d0srv15)                   |  | AL      | SS                | 1 day    |
| 179 | ✓   | 3.5.1.2.2.4.2   | REX ops installs software on new production fwd node (samgfwd02)                |  | AL      | SS                | 2 days   |
| 180 | ✓   | 3.5.1.2.2.4.6   | REX ops tests new production fwd node (samgfwd02)                               |  | AL      | SS                | 5 days   |
| 181 | ✓   | 3.5.1.2.2.4.7   | Rex ops and SamGrid Dev resolve perl/VDT issues revealed in fwd node test       |  | AL      | SS,PM             | 8 days   |
| 182 |   | 3.5.1.2.2.4.8   | REX ops retests new production fwd node (samgfwd02)                             |  | AL      | SS                | 5 days   |
| 183 |   | 3.5.1.2.2.4.3   | Put new fwd node in production, take old node out (samgfwd02, old: d0srv15)     |  | AL      | SS                | 1 day    |
| 184 |   | 3.5.1.2.2.4.5   | milestone: verified fwd node configuration and procedure                        |  | AL      |                   | 0 days   |
| 185 |   | 3.5.1.2.2.5     | <b>Reinstall Forwarding Node 3</b>  |  | AL      |                   | 4 days   |
| 186 |   | 3.5.1.2.2.5.1   | REX ops drains and take production fwd node offline (d0srv66)                   |  | AL      | SS                | 1 day    |
| 187 |   | 3.5.1.2.2.5.2   | REX ops installs software on new production fwd node (samgfwd03)                |  | AL      | SS                | 1 day    |
| 188 |   | 3.5.1.2.2.5.5   | REX ops tests new production fwd node (samgfwd03)                               |  | AL      | SS                | 1 day    |
| 189 |   | 3.5.1.2.2.5.3   | Put new fwd node in production, take old node out (samgfwd03, old: d0srv66)     |  | AL      | SS                | 1 day    |
| 190 |   | 3.5.1.2.2.7     | MILE 15: OSG Fwd nodes reinstalled with std config                              |  | GG      |                   | 0 days   |
| 191 | ✓   | 3.5.1.2.2.8     | Organize activities to prepare for LCG fwd node migration                       |  | GG      | GG                | 13 days  |
| 192 |   | 3.5.1.2.2.10    | <b>Reinstall LCG/UK Forwarding Node</b>   |  | AL      |                   | 8 days   |
| 193 |   | 3.5.1.2.2.10.5  | Site ops drains and take production fwd node offline                            |  | AL      | LCG               | 5 days   |
| 194 |   | 3.5.1.2.2.10.6  | REX ops installs software on LCG/UK fwd node                                    |  | AL      | SS                | 1 day    |
| 195 |   | 3.5.1.2.2.10.7  | REX ops puts fwd node back into system  |  | AL      | SS                | 1 day    |
| 196 |   | 3.5.1.2.2.10.8  | Site and REX ops configure production fwd node                                  |  | AL      | SS,LCG            | 2 days   |
| 197 |   | 3.5.1.2.2.10.9  | milestone: LCG/UK Forwarding Node reinstalled with std config                   |  | AL      |                   | 0 days   |
| 198 |   | 3.5.1.2.2.11    | <b>Reinstall LCG/Germany Forwarding Node</b>                                    |  | AL      |                   | 9 days   |
| 199 |   | 3.5.1.2.2.11.15 | Site ops drains and take production fwd node offline                            |  | AL      | LCG               | 5 days   |
| 200 |   | 3.5.1.2.2.11.16 | REX ops installs software on LCG/Germany fwd node                               |  | AL      | SS                | 1 day    |
| 201 |   | 3.5.1.2.2.11.17 | REX ops puts fwd node back into system  |  | AL      | SS                | 1 day    |
| 202 |   | 3.5.1.2.2.11.18 | Site and REX ops configure production fwd node                                  |  | AL      | SS,LCG            | 2 days   |
| 203 |   | 3.5.1.2.2.11.19 | milestone: LCG/Germany Forwarding Node reinstalled with std config              |  | AL      |                   | 0 days   |
| 204 |   | 3.5.1.2.3       | milestone: Forwarding nodes reinstalled with standard configuration             |  | GG      |                   | 0 days   |
| 205 |   | 3.5.1.3         | <b>Reinstall Queueing Node with standard configuration</b>                      |  | GG,AL   |                   | 69 days  |
| 206 | ✓  | 3.5.1.3.1       | Define standard queueing node machine configuration                             |  | GG      | PM                | 5 days   |
| 207 | ✓   | 3.5.1.3.2       | <b>Reinstall Queueing Node: Oct 19 - Nov 6</b>                                  |  | GG      |                   | 21 days  |
| 208 | ✓  | 3.5.1.3.2.1     | Admins procure HW parts for samgrid-like node (job queuing, broker, web server) |  | GG      | FEF               | 12 days  |
| 209 | ✓   | 3.5.1.3.2.2     | Admins configure test instance of samgrid-like node                             |  | GG      | FGS               | 2 days   |

| ID  |  | WBS                | Task Name   |  | Contact | Resource Initials | Duration       |
|-----|--|--------------------|---|--|---------|-------------------|----------------|
| 210 | ✓  | 3.5.1.3.2.3        | Developers install and test samgrid-like node (by Wed Nov 7)                  |  | GG      | PM                | 2 days         |
| 211 | ✓   | 3.5.1.3.2.4        | Adjust current installation instructions                                      |  | GG      | PM                | 1 day          |
| 212 | ✓  | 3.5.1.3.2.5        | Adjust current software to use standard location as default                   |  | GG      | PM                | 1 day          |
| 213 | ✓  | 3.5.1.3.2.6        | Admins configure production samgrid-like node                                 |  | AL      | FGS               | 1 day          |
| 214 | ✓  | 3.5.1.3.2.7        | REX ops installs queuing software on production samgrid-like node             |  | AL      | SS                | 1 day          |
| 215 | ✓  | 3.5.1.3.2.9        | Dev ops installs web server software on production samgrid-like node          |  | AL      | PM                | 1 day          |
| 216 | ✓  | <b>3.5.1.3.2.8</b> | <b>REX ops integrates new samgrid-like node into production system</b>        |  | AL      |                   | <b>1 day</b>   |
| 217 | ✓  | 3.5.1.3.2.8.1      | Replace samgrid.fnal.gov (Dec 4 downtime, prefer Nov 6 downtime)              |  | AL      | SS                | 1 day          |
| 218 | ✓  | <b>3.5.1.3.3</b>   | <b>MILE 12: Queuing node reinstalled with std config</b>                      |  | GG      |                   | <b>0 days</b>  |
| 219 | ✓  | 3.5.1.3.4          | Diagnose job history incompatibility issues and create migration plan         |  | GG      | PM,GG             | 3 days         |
| 220 | ✓  | 3.5.1.3.11         | Prepare for migration from mixed old/new samgrid nodes to new node use only   |  | GG      | PM,GG             | 5 days         |
| 221 | ✓  | 3.5.1.3.5          | Migrate MC Prod from mixed old/new samgrid nodes to new node use only         |  | GG      | JS                | 23 days        |
| 222 | ✓  | 3.5.1.3.6          | Migrate Prod from mixed old/new samgrid nodes to new node use only            |  | GG      | MD                | 7 days         |
| 223 |  | 3.5.1.3.12         | Turn off old samgrid.fnal.gov - warn,do,check                                 |  | GG      | GG                | 6 days         |
| 224 |  | <b>3.5.1.3.8</b>   | <b>milestone: Migration to exclusive use of new samgrid node completed</b>    |  | GG      |                   | <b>0 days</b>  |
| 225 | ✓  | <b>3.5.1.4</b>     | <b>Reinstall Durable Locations with standard configuration</b>                |  | GG,AL   |                   | <b>13 days</b> |
| 226 | ✓   | 3.5.1.4.1          | Define standard durable location machine configuration                        |  | GG      | PM                | 9 days         |
| 227 | ✓  | <b>3.5.1.4.2</b>   | <b>Reinstall Durable Locations: Nov 9 - Nov 28</b>                            |  | GG      |                   | <b>4 days</b>  |
| 228 | ✓   | 3.5.1.4.2.1        | MOOT: Admins procure HW parts(?) for test instance of durable location node   |  | GG      | FEF               | 0 days         |
| 229 | ✓   | 3.5.1.4.2.2        | MOOT: Admins configure test instance of durable location node (by Fri Nov 9)  |  | GG      | FEF               | 0 days         |
| 230 | ✓  | 3.5.1.4.2.3        | MOOT: Developers install and test durable location node (by Fri Nov 23)       |  | GG      | PM                | 0 days         |
| 231 | ✓   | 3.5.1.4.2.4        | Durable Locations: Adjust current installation instructions                   |  | GG      | PM                | 1 day          |
| 232 | ✓  | 3.5.1.4.2.5        | MOOT: Adjust current software to use standard location as default             |  | GG      | PM                | 0 days         |
| 233 | ✓  | 3.5.1.4.2.6        | MOOT: REX ops re-installs on test machine                                     |  | AL      | SS                | 0 days         |
| 234 | ✓  | <b>3.5.1.4.2.7</b> | <b>REX ops reconfigures existing durable locations</b>                        |  | AL      |                   | <b>0 days</b>  |
| 235 | ✓   | 3.5.1.4.2.7.1      | MOOT: Stop tmr upload to d0srv063; REX ops reinstalls durable location        |  | AL      | SS                | 0 days         |
| 236 | ✓  | 3.5.1.4.2.7.2      | MOOT: Stop tmr upload to d0srv065; REX ops reinstalls durable location        |  | AL      | SS                | 0 days         |
| 237 | ✓  | 3.5.1.4.3          | <b>MILE 17: Durable Locations reinstalled with std config</b>                 |  | GG      |                   | 0 days         |
| 238 |  | <b>3.5.1.5</b>     | <b>milestone: Standard configuration defined and key machines reinstalled</b> |  | GG      |                   | <b>0 days</b>  |
| 239 |  | <b>3.5.8</b>       | <b>Create SamGrid Test Stand</b>  |  | AL      |                   | <b>9 days</b>  |
| 240 |  | 3.5.8.1            | REX ops installs software on test fwd node (d0srv15)                          |  | AL      | SS                | 1 day          |
| 241 |   | 3.5.8.2            | Admins fix disk on test queue node (old samgrid)                              |  | AL      | FEF               | 2 days         |
| 242 |   | 3.5.8.5            | REX ops installs software on test queue node (old samgrid)                    |  | AL      | SS                | 1 day          |
| 243 |  | 3.5.8.6            | REX ops installs durable locations test machine                               |  | AL      | SS                | 1 day          |
| 244 |  | 3.5.8.3            | Trial use of SamGrid test stand   |  | AL      | SS                | 3 days         |
| 245 |  | <b>3.5.8.4</b>     | <b>milestone: SamGrid test stand completed</b>                                |  | AL      |                   | <b>0 days</b>  |
| 246 |  | <b>3.5.2</b>       | <b>Automate routine maintenance operations</b>                                |  | GG      |                   | <b>24 days</b> |
| 247 |  | <b>3.5.2.1</b>     | <b>Automatic clean up of job queues</b>                                       |  | GG      |                   | <b>7 days</b>  |
| 248 | ✓  | 3.5.2.1.3          | Dev tools to auto-clean up SamGrid job queue in samgrid_util                  |  | GG      | PM                | 2 days         |
| 249 |  | 3.5.2.1.4          | Deploy/observe tools for SamGrid job queue                                    |  | GG      | PM,SS             | 3 days         |
| 250 | ✓  | 3.5.2.1.5          | Dev tools to auto-clean up OSG job queue in samgrid_util                      |  | GG      | PM                | 2 days         |
| 251 |  | 3.5.2.1.2          | Deploy/observe tools for auto-clean up for OSG job queue                      |  | GG      | PM,SS             | 2 days         |

| ID  | WBS       | Task Name   | Contact | Resource Initials | Duration |
|-----|-----------|---|---------|-------------------|----------|
| 252 | 3.5.2.2   | <b>Automatic clean-up of disk areas</b>   | GG      |                   | 5 days   |
| 253 | 3.5.2.2.1 | Resolve: Globus gatekeeper does not properly cleanup gass caches                  | GG      | PM                | 1 day    |
| 254 | 3.5.2.2.2 | Periodically clean up gram log files at fwd nodes and exec sites                  | GG      | PM                | 1 day    |
| 255 | 3.5.2.2.3 | Clean up sandboxes and jim_tmp areas at fwd node                                  | GG      | PM                | 1 day    |
| 256 | 3.5.2.2.4 | Clean up non-rotated log files (eg. Tomcat)                                       | GG      | PM                | 2 days   |
| 257 | 3.5.2.3   | Automation of all gridmap file management (including condor_schedd)               | GG      | PM                | 2 days   |
| 258 | 3.5.2.4   | Simplify maintenance of automatic clean-up scripts for durable locations          | GG      | AB2               | 4 days   |
| 259 | 3.5.2.5   | Add the deployment of scripts to installation instructions                        | GG      | PM                | 3 days   |
| 260 | 3.5.2.6   | Assess automation of maintenance operations                                       | GG      | AL                | 3 days   |
| 261 | 3.5.2.7   | <b>MILE 23: Routine maintenance operations automated</b>                          | GG      |                   | 0 days   |
| 262 | 3.5.3     | <b>Improve robustness of key services</b>   | GG      |                   | 19 days  |
| 263 | 3.5.3.1   | <b>Improve condor status querying performance: install, evaluate condor_quill</b> | GG      |                   | 13 days  |
| 264 | 3.5.3.1.1 | Determine goal level, requirements  | GG      | PM                | 4 days   |
| 265 | 3.5.3.1.2 | Determine existing querying performance   | GG      | PM                | 4 days   |
| 266 | 3.5.3.1.3 | <b>DECISION: test condor_quill or mitigate or live with current</b>               | GG      |                   | 0 days   |
| 267 | 3.5.3.1.4 | Evaluate condor_quill, if determined to be necessary                              | GG      | PM                | 5 days   |
| 268 | 3.5.3.2   | Improve algorithm for selection of OSG resources                                  | GG      | PM                | 6 days   |
| 269 | 3.5.3.3   | <b>milestone: Robustness in key services improved</b>                             | GG      |                   | 0 days   |
| 270 | 3.5.4     | <b>Automatic handling of job log files</b>  | GG      |                   | 96 days  |
| 271 | 3.5.4.1   | Reduce size of output sandbox   | GG      | AB2               | 1 day    |
| 272 | 3.5.4.2   | Make output sandbox space management more robust                                  | GG      | AB2               | 1 day    |
| 273 | 3.5.4.3   | Transfer output sandbox selection logic to Runjob: Initial Pass                   | GG      | PL                | 20 days  |
| 274 | 3.5.4.8   | Transfer output sandbox selection logic to Runjob: Test, add old/new support      | GG      | AB2               | 8 days   |
| 275 | 3.5.4.10  | Transfer output sandbox selection logic to Runjob: Final testing                  | GG      | AB2               | 5 days   |
| 276 | 3.5.4.7   | Transfer output sandbox selection logic to Runjob: Post-Testing work              | GG      | PL                | 5 days   |
| 277 | 3.5.4.9   | <b>LogFile Access Tools</b>   |         |                   | 23 days  |
| 278 | 3.5.4.9.1 | Specify tools for accessing old logfiles  | GG      | MD                | 5 days   |
| 279 | 3.5.4.9.2 | Provide tools (to MD) for accessing old logfiles                                  | GG      | AB2               | 6 days   |
| 280 | 3.5.4.9.3 | Test logfile access tools   | GG      | MD                | 5 days   |
| 281 | 3.5.4.9.4 | Revise tools given customer feedback  | GG      | AB2               | 2 days   |
| 282 | 3.5.5     | <b>Automate system health alarms</b>  | GG      |                   | 89 days  |
| 283 | 3.5.5.1   | <b>NGOP central service</b>   | GG      |                   | 66 days  |
| 284 | 3.5.5.1.1 | Define hardware   | GG      | AB2               | 1 day    |
| 285 | 3.5.5.1.2 | Install basic NGOP server   | GG      | AB2               | 1 day    |
| 286 | 3.5.5.1.4 | Deploy and test best schema as depicted   | GG      | AB2               | 1 day    |
| 287 | 3.5.5.1.5 | Understand SAM-Grid representation requirements: Dev part                         | AL      | AB2               | 5 days   |
| 288 | 3.5.5.1.6 | Understand SAM-Grid representation requirements: Ops part                         | AL      | RH                | 5 days   |
| 289 | 3.5.5.1.9 | Static NGOP configuration approach (instead of automated)                         | AL      | AB2,REX           | 8 days   |
| 290 | 3.5.5.1.8 | <b>milestone: NGOP central service prepared</b>                                   | GG      |                   | 0 days   |
| 291 | 3.5.5.2   | <b>Samgrid_mon</b>  | GG      |                   | 19 days  |
| 292 | 3.5.5.2.1 | Develop persistent environment for repetitive task execution                      | GG      | AB2               | 10 days  |
| 293 | 3.5.5.2.2 | Develop converter between SamGrid config and next-gen cron                        | GG      | AB2               | 5 days   |

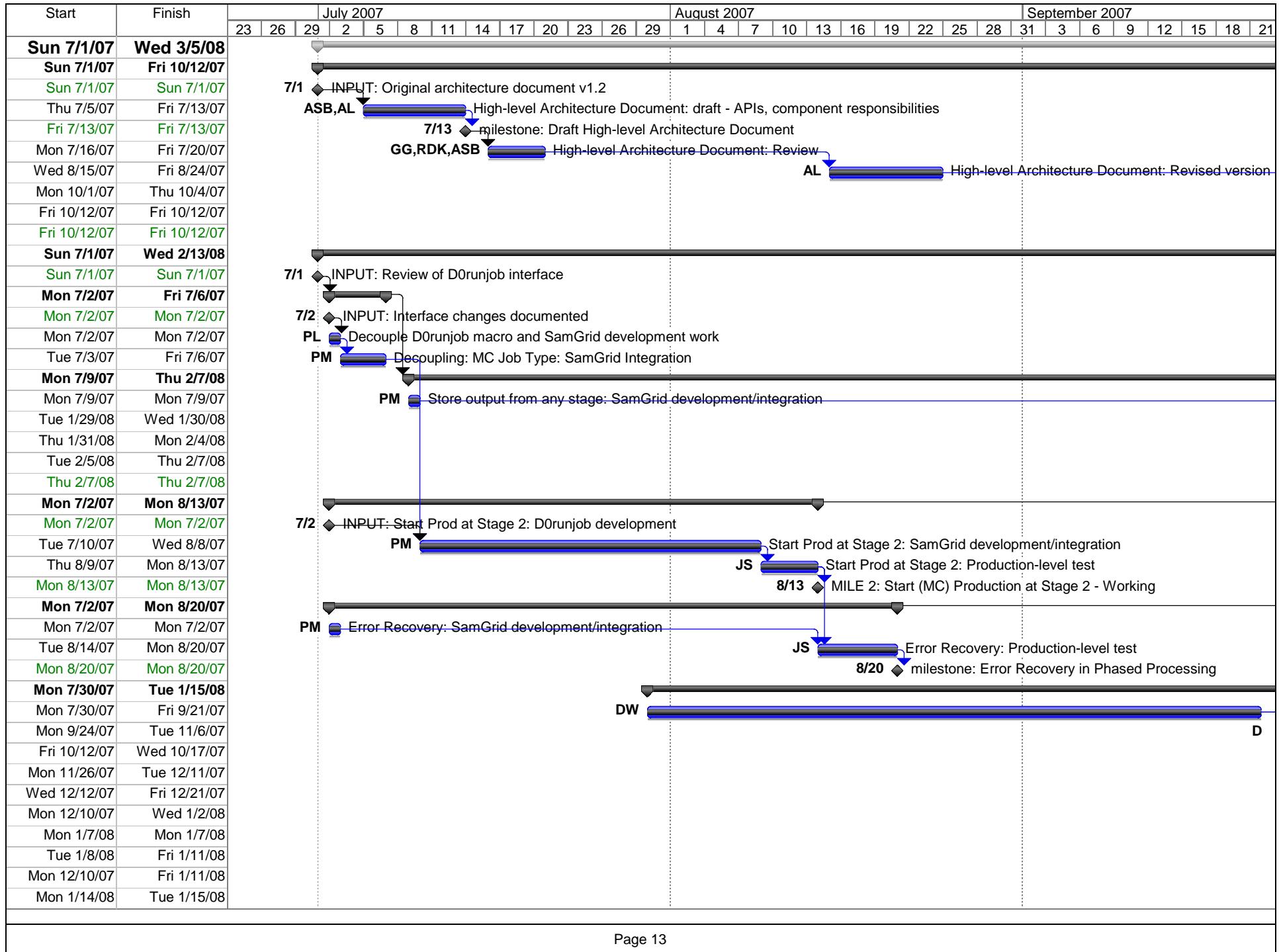
| ID  |   | WBS       | Task Name  |  | Contact | Resource Initials | Duration |
|-----|---|-----------|--|--|---------|-------------------|----------|
| 294 | ✓ | 3.5.5.2.4 | Store duplicate configuration of fwd node  |  | GG      | AB2               | 1 day    |
| 295 | ✓ | 3.5.5.2.5 | Accept existing configuration of fwd node  |  | GG      | AB2               | 1 day    |
| 296 | ✓ | 3.5.5.2.6 | Dispatch list of monitoring agents periodically, collect statuses                    |  | GG      | AB2               | 1 day    |
| 297 | ✓ | 3.5.5.2.7 | Create distributable UPD package   |  | GG      | AB2               | 1 day    |
| 298 | ✓ | 3.5.5.2.8 | milestone: Samgrid_mon developed   |  | GG      |                   | 0 days   |
| 299 | ✓ | 3.5.5.3   | <b>Develop monitoring scripts</b>  |  | GG      |                   | 13 days  |
| 300 | ✓ | 3.5.5.3.1 | Develop generic scripts for Gridftp and Fcp monitoring                               |  | GG      | AB2               | 1 day    |
| 301 | ✓ | 3.5.5.3.3 | Data Nodes: Stager, Durable location, caches, Gridftp, Fcp                           |  | GG      | AB2               | 6 days   |
| 302 | ✓ | 3.5.5.3.2 | Forwarding Node: Gridftp, Fcp, Jim_advertise, XML db, Sandbox, opt. sched. component |  | GG      | AB2               | 6 days   |
| 303 | ✓ | 3.5.5.3.4 | milestone: Monitoring scripts developed  |  | GG      |                   | 0 days   |
| 304 | ✓ | 3.5.5.5   | Assess automation of alarming systems  |  | GG      | AB2               | 2 days   |
| 305 | ✓ | 3.5.5.6   | Integration deployment and testing   |  | GG      | AB2               | 4 days   |
| 306 | ✓ | 3.5.5.7   | Documentation Initiation   |  | GG      | AB2               | 5 days   |
| 307 | ✓ | 3.5.5.4   | MILE 19: System health alarms deployed via NGOP with static config                   |  | GG      |                   | 0 days   |
| 308 | ✓ | 3.5.5.12  | Generate NGOP agents from set of monitoring scripts and config                       |  | GG      | AB2               | 2 days   |
| 309 |   | 3.5.5.14  | Documentation Completion   |  | GG      | AB2               | 10 days  |
| 310 |   | 3.5.5.15  | Develop generic NGOP rules: alarm severity, paging/email notifications               |  | AL      | AL                | 5 days   |
| 311 | █ | 3.5.5.11  | Automated administration of NGOP schema and config                                   |  | AL      | RH                | 10 days  |
| 312 |   | 3.5.5.13  | Integration deployment and testing   |  | GG      | AB2               | 4 days   |
| 313 |   | 3.5.5.9   | Documentation Update   |  | GG      | AB2               | 3 days   |
| 314 |   | 3.5.5.8   | milestone: System health alarms via NGOP with automated config and doc               |  | GG      |                   | 0 days   |
| 315 | █ | 3.5.6     | <b>Improve system testing infrastructure</b>   |  | GG      |                   | 103 days |
| 316 | ✓ | 3.5.6.1   | <b>Simplify running test jobs</b>  |  | GG      |                   | 3 days   |
| 317 | ✓ | 3.5.6.1.1 | Create test parameters for all job types   |  | GG      | AB2               | 1 day    |
| 318 | ✓ | 3.5.6.1.2 | Create and distribute JDL templates with test parameters                             |  | GG      | AB2               | 1 day    |
| 319 | ✓ | 3.5.6.1.3 | Write testing instructions   |  | GG      | AB2               | 1 day    |
| 320 | ✓ | 3.5.6.1.4 | milestone: Running test jobs simplified per request                                  |  | GG      |                   | 0 days   |
| 321 |   | 3.5.6.2   | <b>Automatic submission of test jobs</b>   |  | GG      |                   | 25 days  |
| 322 |   | 3.5.6.2.1 | Develop automatic job management framework   |  | GG      | AB2,REX           | 10 days  |
| 323 |   | 3.5.6.2.2 | Automatic analysis of test results   |  | GG      | AB2,REX           | 10 days  |
| 324 |   | 3.5.6.2.3 | Integrate with alarming system   |  | GG      | AB2,REX           | 5 days   |
| 325 |   | 3.5.6.2.4 | milestone: Automatic submission of test jobs completed                               |  | GG      |                   | 0 days   |
| 326 |   | 3.5.7     | milestone: End of the Road to Operations   |  | GG      |                   | 0 days   |
| 327 |   | 3.6       | <b>Operations Reduction/Transfer: Close-out</b>                                      |  | GG,AL   |                   | 2 days   |
| 328 |   | 3.6.1     | Evaluate operations load on dev and ops groups post-transition                       |  | GG,AL   |                   | 2 days   |
| 329 |   | 3.6.2     | Evaluate operations processes post-transition  |  | GG,AL   |                   | 2 days   |
| 330 |   | 3.6.3     | milestone: Operations Reduction and Transfer closed out                              |  | GG,AL   |                   | 0 days   |
| 331 |   | 3.7       | <b>Other Operations-related Fixes and Upgrades</b>                                   |  | GG      |                   | 117 days |
| 332 | ✓ | 3.7.1     | Clarify D0 certificate approval process, personnel                                   |  | GG      | GG                | 5 days   |
| 333 |   | 3.7.5     | <b>Fix "Immortal Jobs" Operations Issue</b>  |  | GG      |                   | 9 days   |
| 334 |   | 3.7.5.5   | Fix Immortal Jobs: SamGrid development/integration                                   |  | GG      | PM                | 5 days   |
| 335 |   | 3.7.5.6   | Fix Immortal Jobs: Create/submit requests to test feature                            |  | GG      | MRQ               | 1 day    |

| ID  |  | WBS     | Task Name   | Contact     | Resource Initials | Duration |  |
|-----|--|---------|---|-------------|-------------------|----------|--|
| 336 |  | 3.7.5.7 | Fix Immortal Jobs: Production-level test  | GG          | JS                | 3 days   |  |
| 337 |  | 3.7.5.8 | milestone: Immortal Job Fix Ready for Production Release                              | GG          |                   | 0 days   |  |
| 338 |  | 3.8     | MILE 27: Close-out of Ops Reduction/Transfer completed                                | GG          |                   | 0 days   |  |
| 339 |  | 4       | <b>D0 Primary Production on Fermigrid</b>   | MD          |                   | 159 days |  |
| 340 |  | 4.1     | <b>Initial Commissioning</b>  | MD          |                   | 9 days   |  |
| 341 |  | 4.1.1   | INPUT: Attempt to run D0 Primary Production on FermiGrid                              | MD          | MD                | 0 days   |  |
| 342 |  | 4.1.2   | OSG/Fermigrid Resource Selection Meeting  | MD          | MD                | 0.5 days |  |
| 343 |  | 4.1.3   | Config D0Production role: Fermigrid, GUMS, CAB, PBS, etc.                             | ST,FEF      | MD                | 6 days   |  |
| 344 |  | 4.1.4   | Run D0 Primary Prod via D0Production role   | MD          | MD                | 1 day    |  |
| 345 |  | 4.1.5   | MILE 1: D0 Primary Production Runnable on Fermigrid                                   | MD          |                   | 0 days   |  |
| 346 |  | 4.2     | D0PPF Commissioning Evaluation Meeting  | RDK         |                   | 1 day    |  |
| 347 |  | 4.3     | <b>Stable Operations</b>  | MD          |                   | 119 days |  |
| 348 |  | 4.3.1   | <b>Commissioning Follow-up</b>  | MD          |                   | 9 days   |  |
| 349 |  | 4.3.1.1 | Fix d0srv065 storage issues   | MD          | MD                | 3 days   |  |
| 350 |  | 4.3.1.2 | Run D0 Primary Prod to verify storage fix   | MD          | MD                | 3 days   |  |
| 351 |  | 4.3.1.3 | Scale-up D0 Primary Prod to 200 nodes   | MD          | MD                | 3 days   |  |
| 352 |  | 4.3.1.4 | milestone: D0PPF Stable Ops: Commissioning follow-up completed                        | MD          | MD                | 0 days   |  |
| 353 |  | 4.3.2   | <b>Management Processes and Documentation</b>   | MD          |                   | 98 days  |  |
| 354 |  | 4.3.2.1 | Implement Change Management for feature requests using SAM IssueTracker               | MD          |                   | 1 day    |  |
| 355 |  | 4.3.2.2 | Establish service level for stable operations and implications on system config       | MD,GG,PM,JS |                   | 5 days   |  |
| 356 |  | 4.3.2.3 | Grid Production System workflow/dataflow diagram - draft                              | RDK         | RDK               | 3 days   |  |
| 357 |  | 4.3.2.4 | Grid Production System info on diagram: node roles, software, maintainers             | RDK         | RDK,AB2           | 2.5 days |  |
| 358 |  | 4.3.2.8 | Grid Production System workflow/dataflow diagram - final                              | RDK         | RDK               | 5 days   |  |
| 359 |  | 4.3.2.5 | Open Science Enclave baseline security plan - implications on SamGrid, CAB            | MD,GG,FEF   |                   | 20 days  |  |
| 360 |  | 4.3.2.6 | Job State diagram with most common error state causes                                 | MD          | PM                | 5 days   |  |
| 361 |  | 4.3.2.7 | milestone: D0PPF Stable Ops: Management Processes and Documentation done              | MD          |                   | 0 days   |  |
| 362 |  | 4.3.3   | <b>System Monitoring</b>  | MD          |                   | 15 days  |  |
| 363 |  | 4.3.3.1 | CAB web monitoring changes requested by MD,JS   | RDK         | FEF               | 15 days  |  |
| 364 |  | 4.3.3.2 | Improve job monitoring, include trend plots   | RDK         | EXT               | 6 days   |  |
| 365 |  | 4.3.3.3 | Augment Job States to be more meaningful to large customer                            | GG          | PM                | 5 days   |  |
| 366 |  | 4.3.3.4 | milestone: D0PPF Stable Ops: System Monitoring done                                   | MD          |                   | 0 days   |  |
| 367 |  | 4.3.4   | <b>Specific System Services Issues</b>  | MD          |                   | 54 days  |  |
| 368 |  | 4.3.4.1 | Allow access by MD to dir/files on CAB owned by dzeropro (suggested: get root access) | MD          | MD                | 1 day    |  |
| 369 |  | 4.3.4.2 | JIM production release consistent with d0runjob v7-7-3 and higher                     | MD          | MD                | 3 days   |  |
| 370 |  | 4.3.4.3 | Evaluate use of ReSS (more flexible than use of roles)                                | GG          | GG                | 28 days  |  |
| 371 |  | 4.3.4.5 | Adapt to use ReSS in D0GPCI   | GG          | GG                | 10 days  |  |
| 372 |  | 4.3.4.4 | milestone: D0PPF Stable Ops: Specific System Services done                            | MD          |                   | 0 days   |  |
| 373 |  | 4.3.5   | <b>General System Services Issues (Road to Operations)</b>                            | GG          |                   | 104 days |  |
| 374 |  | 4.3.5.1 | INPUT: (3.4.1) Standardize file system layout on SamGrid nodes                        | GG          |                   | 0 days   |  |
| 375 |  | 4.3.5.2 | INPUT: (3.4.1) Get all nodes governing operation in a consistent, known state         | GG          |                   | 0 days   |  |
| 376 |  | 4.3.5.3 | INPUT: (3.4.2.3) Evaluate how to reduce bandwidth consumed by moving logs             | GG          |                   | 0 days   |  |
| 377 |  | 4.3.5.4 | INPUT: (3.4.2.3.1) Make Custom output support smarter, use compression                | GG          | AB2               | 0 days   |  |

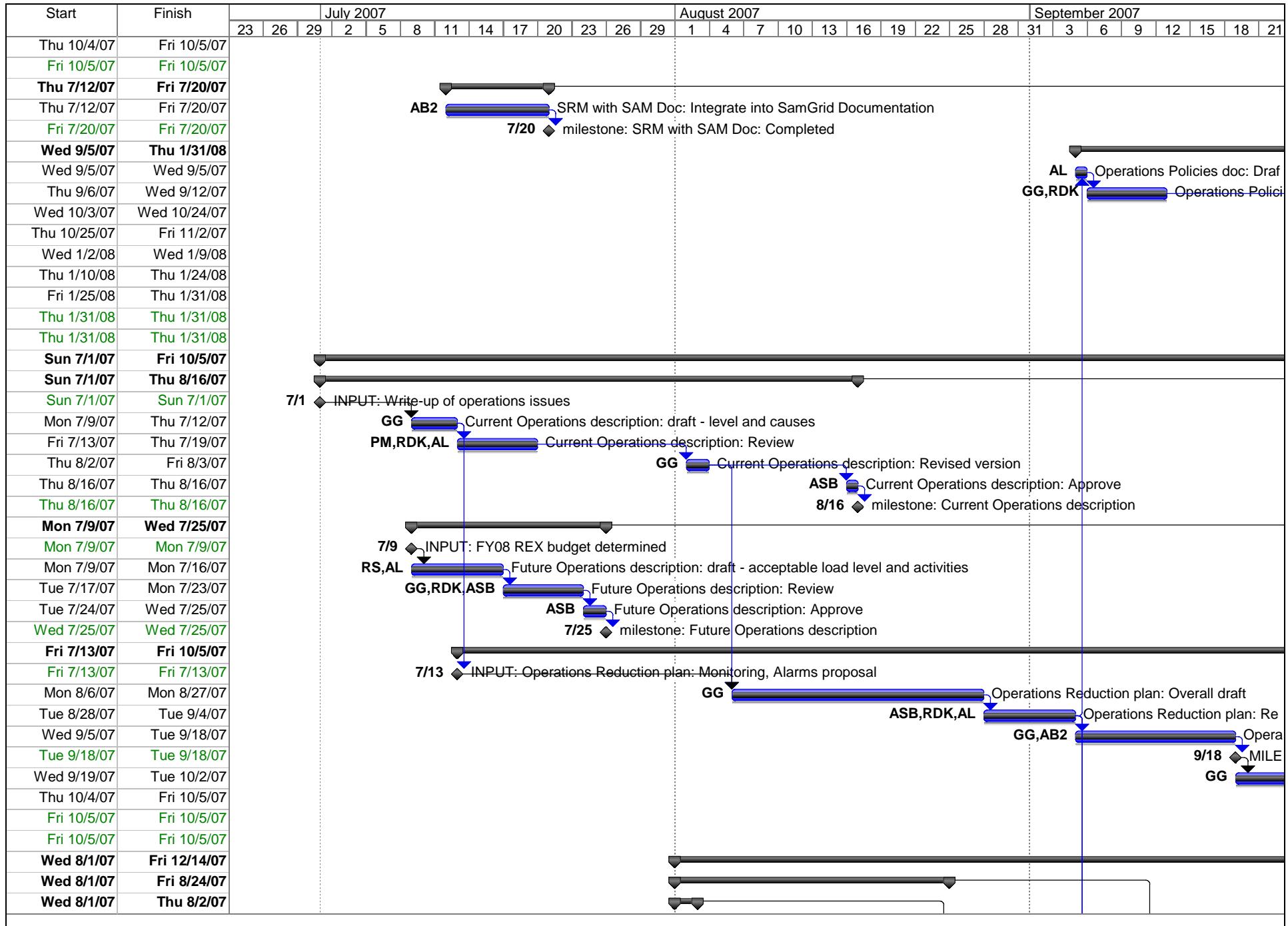
| ID  |   | WBS     | Task Name   | Contact | Resource Initials | Duration |  |
|-----|---|---------|---|---------|-------------------|----------|--|
| 378 |   | 4.3.5.5 | INPUT: (3.4.2.3.2) Migrate Custom output support from SAM wrapper to D0runjob | GG      |                   | 0 days   |  |
| 379 | ✓ | 4.3.5.6 | INPUT: (3.4.2.3.3) Implement a logfile archive node                           | GG      |                   | 0 days   |  |
| 380 |   | 4.3.5.7 | milestone: D0PPF Stable Ops: General System Services done                     | GG      |                   | 0 days   |  |
| 381 |   | 4.3.6   | <b>Stable Operations Service Challenge</b>                                    | MD      |                   | 8 days   |  |
| 382 |   | 4.3.6.1 | Define conditions of challenge  | MD      | MD                | 1 day    |  |
| 383 |   | 4.3.6.2 | Service Challenge execution   | MD      | MD                | 5 days   |  |
| 384 |   | 4.3.6.3 | Service Challenge evaluation  | MD      |                   | 2 days   |  |
| 385 |   | 4.3.6.4 | milestone: Service Challenge completed  | MD      |                   | 0 days   |  |
| 386 |   | 4.3.7   | milestone: D0 Primary Production on Fermigrid meets stability criteria        | MD      |                   | 0 days   |  |
| 387 |   | 4.4     | D0PPF Operations Evaluation Meeting   | RDK     |                   | 1 day    |  |
| 388 |   | 4.7     | MILE 28: D0 Primary Production Stable on Fermigrid                            | MD      |                   | 0 days   |  |
| 389 | ✓ | 5       | <b>Extend Grid Production System Functionality</b>                            | GG      |                   | 83 days  |  |
| 390 | ✓ | 5.1     | <b>Forwarding Node Behind Firewall</b>  | GG      |                   | 5 days   |  |
| 391 | ✓ | 5.1.1   | Forwarding Node Behind Firewall: Evaluate, determine best course of action    | GG      | AB2               | 5 days   |  |
| 392 | ✓ | 5.2     | <b>Minimal Resource Brokering</b>   | GG      |                   | 20 days  |  |
| 393 | ✓ | 5.2.1   | Minimal Resource Brokering: Evaluate, determine best course of action         | GG      | GG                | 20 days  |  |
| 394 | ✓ | 5.3     | MILE 16: Grid Production System functionality completed                       | GG      |                   | 0 days   |  |
| 395 |   | 6       | <b>Preparation of D0 Apps for Long-term</b>                                   | ASB     |                   | 66 days  |  |
| 396 |   | 6.1     | <b>Skimming</b>   | HG      |                   | 13 days  |  |
| 397 |   | 6.1.1   | Productize Skimming   | D0      | D0                | 13 days  |  |
| 398 |   | 6.2     | <b>CAF Trees</b>  |         |                   | 13 days  |  |
| 399 |   | 6.2.1   | Productize CAF Tree generation  | D0      | D0                | 13 days  |  |
| 400 |   | 6.3     | <b>Raw2Sim</b>  |         |                   | 13 days  |  |
| 401 |   | 6.3.1   | Productize Raw2Sim  | D0      | D0                | 13 days  |  |
| 402 |   | 6.4     | <b>AADST</b>  |         |                   | 66 days  |  |
| 403 |   | 6.4.1   | Productize AADST  | D0      | D0                | 13 days  |  |
| 404 | ✓ | 6.4.3   | Enable data migration to SAM storage  | AL      | AL                | 2 days   |  |
| 405 |   | 6.4.4   | Track data migration to SAM storage   | AL      | AL                | 59 days  |  |
| 406 |   | 6.4.5   | Perform data migration to SAM storage   | AL      | D0                | 64 days  |  |
| 407 |   | 6.5     | MILE 24: Preparation of D0 Apps for long-term                                 | ASB     |                   | 0 days   |  |
| 408 |   | 7       | <b>Evaluation of D0 SamGrid Requests</b>                                      | RDK     |                   | 66 days  |  |
| 409 |   | 7.1     | <b>Reco</b>   |         |                   | 0 days   |  |
| 410 |   | 7.1.1   | EVAL: Ability to merge more than 1 stream from Reco                           | RDK     |                   | 0 days   |  |
| 411 |   | 7.2     | <b>MC Production</b>  |         |                   | 0 days   |  |
| 412 |   | 7.2.1   | EVAL: Ability to run TrigSim in MC Production                                 | RDK     |                   | 0 days   |  |
| 413 |   | 7.3     | <b>Skimming</b>   |         |                   | 0 days   |  |
| 414 |   | 7.3.1   | EVAL: Skimming in Production  | RDK     |                   | 0 days   |  |
| 415 |   | 7.4     | EVAL: Fixing  |         |                   | 0 days   |  |
| 416 |   | 7.5     | <b>Raw2Sim</b>  |         |                   | 0 days   |  |
| 417 |   | 7.5.1   | EVAL: Run raw2sim on minbias files  | RDK     |                   | 0 days   |  |
| 418 |   | 7.6     | <b>Reco-cert</b>  |         |                   | 66 days  |  |
| 419 |   | 7.6.1   | EVAL: Merging of reco-cert files  | RDK     |                   | 0 days   |  |

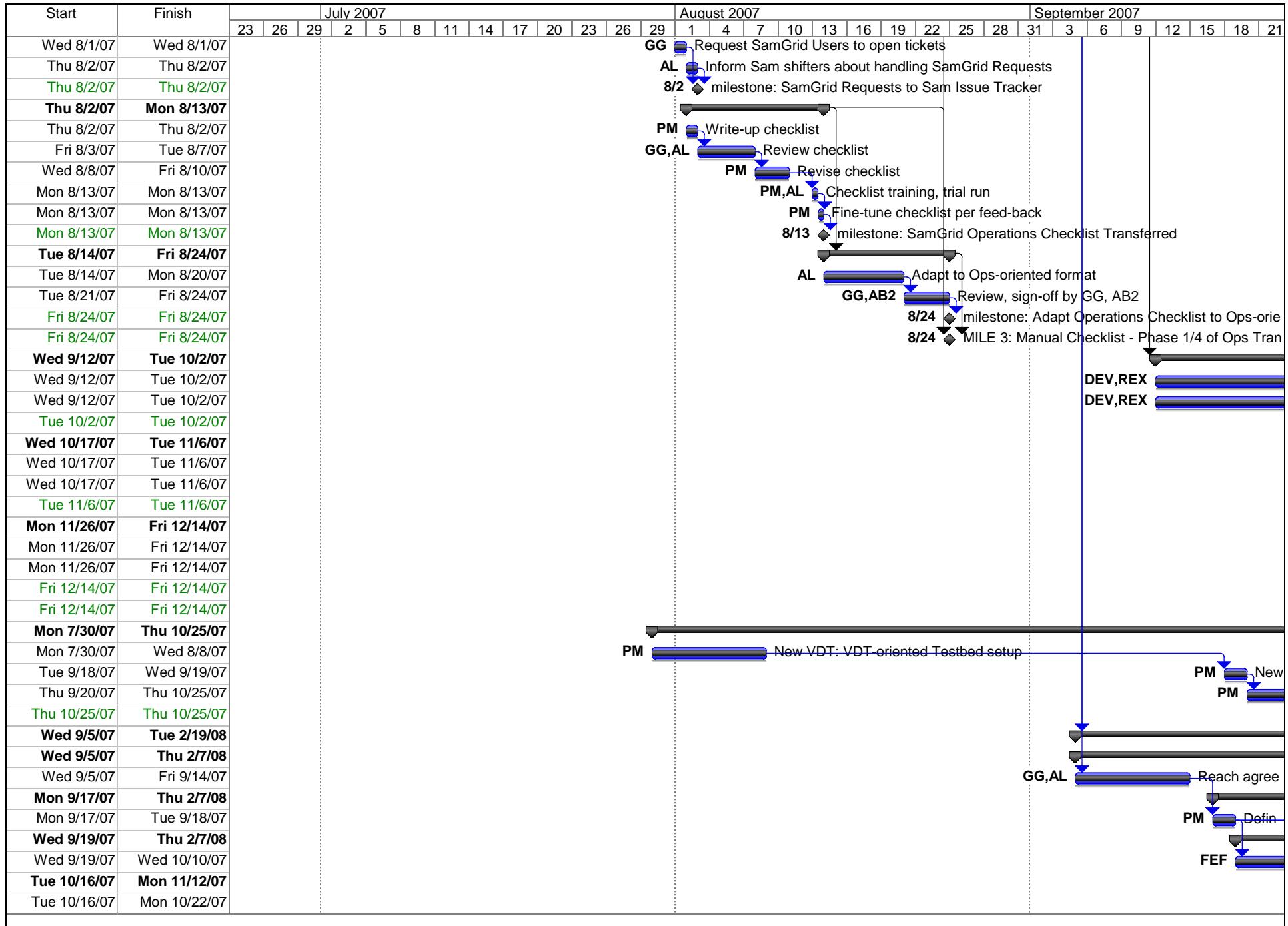
| ID  |  | WBS     | Task Name  | Contact | Resource Initials | Duration    |  |
|-----|--|---------|--|---------|-------------------|-------------|--|
| 420 |  | 7.6.2   | <b>Stand-alone production of reco-cert output on SamGrid</b>             |         |                   | 9 days      |  |
| 421 |  | 7.6.2.1 | Develop WBS for implementing S/A Recocert on SamGrid                     | RDK     | RDK               | 9 days      |  |
| 422 |  | 7.7     | <b>CAF Trees</b>   |         |                   | 0 days      |  |
| 423 |  | 7.7.1   | EVAL: CAF Trees from Production  | RDK     |                   | 0 days      |  |
| 424 |  | 7.8     | EVAL: MC CAF Trees   | RDK     |                   | 0 days      |  |
| 425 |  | 7.9     | EVAL: AADST  | RDK     |                   | 0 days      |  |
| 426 |  | 7.10    | EVAL: Grid Analysis  | RDK     |                   | 0 days      |  |
| 427 |  | 7.12    | <b>Evaluate remaining D0 SamGrid Requests</b>                            | RDK     |                   | 66 days     |  |
| 428 |  | 7.12.2  | Develop generic WBS for adapting D0 Apps to Grid Production              | RDK     | RDK               | 9 days      |  |
| 429 |  | 7.12.3  | Create form to capture D0 App requirements, workflow, use patterns       | RDK     | RDK               | 7 days      |  |
| 430 |  | 7.12.4  | Create maintainable list of known portability issues for D0 Apps on Grid | RDK     | RDK               | 7 days      |  |
| 431 |  | 7.12.1  | Write evaluation of requests based on generic WBS                        | RDK     | RDK               | 7 days      |  |
| 432 |  | 7.12.5  | D0 SamGrid Requests Evaluation: Review                                   | RDK     |                   | 5 days      |  |
| 433 |  | 7.12.6  | D0 SamGrid Requests Evaluation: Revision                                 | RDK     | RDK               | 1 day       |  |
| 434 |  | 7.12.7  | D0 SamGrid Requests Evaluation: Approval                                 | RDK     |                   | 1 day       |  |
| 435 |  | 7.11    | <b>MILE 25: Evaluation of D0 SamGrid Requests done</b>                   | RDK     |                   | 0 days      |  |
| 436 |  | 8       | <b>Project Management</b>  | RDK     |                   | 169 days    |  |
| 437 |  | 8.1     | <b>INPUT: Draft Preliminary High-level WBS</b>                           | RDK     | RDK               | 0 days      |  |
| 438 |  | 8.2     | <b>Initiative Coordination Meeting</b>                                   | RDK     |                   | 141.13 days |  |
| 439 |  | 8.2.1   | Initiative Coordination Meeting 1  | RDK     |                   | 1 hr        |  |
| 440 |  | 8.2.2   | Initiative Coordination Meeting 2  | RDK     |                   | 1 hr        |  |
| 441 |  | 8.2.3   | Initiative Coordination Meeting 3  | RDK     |                   | 1 hr        |  |
| 442 |  | 8.2.4   | Initiative Coordination Meeting 4  | RDK     |                   | 1 hr        |  |
| 443 |  | 8.2.5   | Initiative Coordination Meeting 5  | RDK     |                   | 1 hr        |  |
| 444 |  | 8.2.6   | Initiative Coordination Meeting 6  | RDK     |                   | 1 hr        |  |
| 445 |  | 8.2.7   | Initiative Coordination Meeting 7  | RDK     |                   | 1 hr        |  |
| 446 |  | 8.2.8   | Initiative Coordination Meeting 8  | RDK     |                   | 1 hr        |  |
| 447 |  | 8.2.9   | Initiative Coordination Meeting 9  | RDK     |                   | 1 hr        |  |
| 448 |  | 8.2.10  | Initiative Coordination Meeting 10                                       | RDK     |                   | 1 hr        |  |
| 449 |  | 8.2.11  | Initiative Coordination Meeting 11                                       | RDK     |                   | 1 hr        |  |
| 450 |  | 8.2.12  | Initiative Coordination Meeting 12                                       | RDK     |                   | 1 hr        |  |
| 451 |  | 8.2.13  | Initiative Coordination Meeting 13                                       | RDK     |                   | 1 hr        |  |
| 452 |  | 8.2.16  | Initiative Coordination Meeting 14                                       | RDK     |                   | 1 hr        |  |
| 453 |  | 8.2.14  | Initiative Coordination Meeting 15                                       | RDK     |                   | 1 hr        |  |
| 454 |  | 8.2.17  | Initiative Coordination Meeting 16                                       | RDK     |                   | 1 hr        |  |
| 455 |  | 8.2.15  | Initiative Coordination Meeting 17                                       | RDK     |                   | 1 hr        |  |
| 456 |  | 8.3     | <b>Project Planning</b>  | RDK     |                   | 78.9 days   |  |
| 457 |  | 8.3.1   | WBS/Schedule v0.8 for 3/7 objectives                                     | RDK     | RDK               | 10 days     |  |
| 458 |  | 8.3.2   | <b>milestone: WBS/Schedule v0.8, begin weekly status'ing</b>             | RDK     |                   | 0 days      |  |
| 459 |  | 8.3.3   | WBS/Schedule v0.9 for 5/7 objectives                                     | RDK     | RDK               | 13 days     |  |
| 460 |  | 8.3.4   | <b>milestone: Plan v0.9 sufficient to drive near-term work</b>           | RDK     |                   | 0 days      |  |
| 461 |  | 8.3.5   | Draft WBS/Schedule v1.0 for 7/7 objectives                               | RDK     | RDK,GG            | 32 days     |  |

| ID  |   | WBS    | Task Name  | Contact | Resource Initials | Duration   |  |
|-----|---|--------|--|---------|-------------------|------------|--|
| 462 | ✓   | 8.3.6  | Big Baseline Planning Meeting  | RDK     |                   | 1 day      |  |
| 463 | ✓   | 8.3.7  | Create Baseline Project Plan v1.0  | RDK     | RDK               | 2 days     |  |
| 464 | ✓    | 8.3.8  | MILE 6: Baseline Project Plan v1.0 released                              | RDK     |                   | 0 days     |  |
| 465 | ✓   | 8.3.9  | Baseline Project Plan: Executive Presentations                           | RDK     | RDK               | 4 days     |  |
| 466 | ✓   | 8.3.12 | Baseline Project Plan v1.0: Integrate feed-back                          | RDK     | RDK               | 2 days     |  |
| 467 | ✓   | 8.3.13 | Baseline Plan Project v1.1: Drop tasks pushed out past end of Initiative | RDK     | RDK               | 2 days     |  |
| 468 | ✓    | 8.3.14 | MILE 8: Project Plan v1.1  | RDK     |                   | 0 days     |  |
| 469 |   | 8.4    | <b>Project Administration</b>  | RDK     |                   | 133.9 days |  |
| 470 | ✓   | 8.4.1  | Planning Phase (Level of Effort = 5%)                                    | RDK     | RDK               | 48 days    |  |
| 471 |   | 8.4.2  | Execution Phase (Level of Effort >= 15%)                                 | RDK     | RDK               | 66 days    |  |
| 472 |   | 8.5    | <b>Project Close-out</b>   | RDK     |                   | 7 days     |  |
| 473 |   | 8.5.1  | Project Close-out Meeting  | RDK     | RDK               | 1 day      |  |
| 474 |   | 8.5.2  | Project Close-out Report   | RDK     | RDK               | 2 days     |  |
| 475 |   | 8.5.3  | Project Close-out Report Approval: ABS, CD                               | RDK     | RDK,ASB           | 3 days     |  |
| 476 |   | 8.5.4  | Archive project artifacts  | RDK     | RDK               | 1 day      |  |
| 477 |   | 8.5.5  | milestone: Initiative Closed-out   | RDK     |                   | 0 days     |  |
| 478 |   | 9      | MILE 29: D0 GPC Initiative completed                                     | ASB     |                   | 0 days     |  |







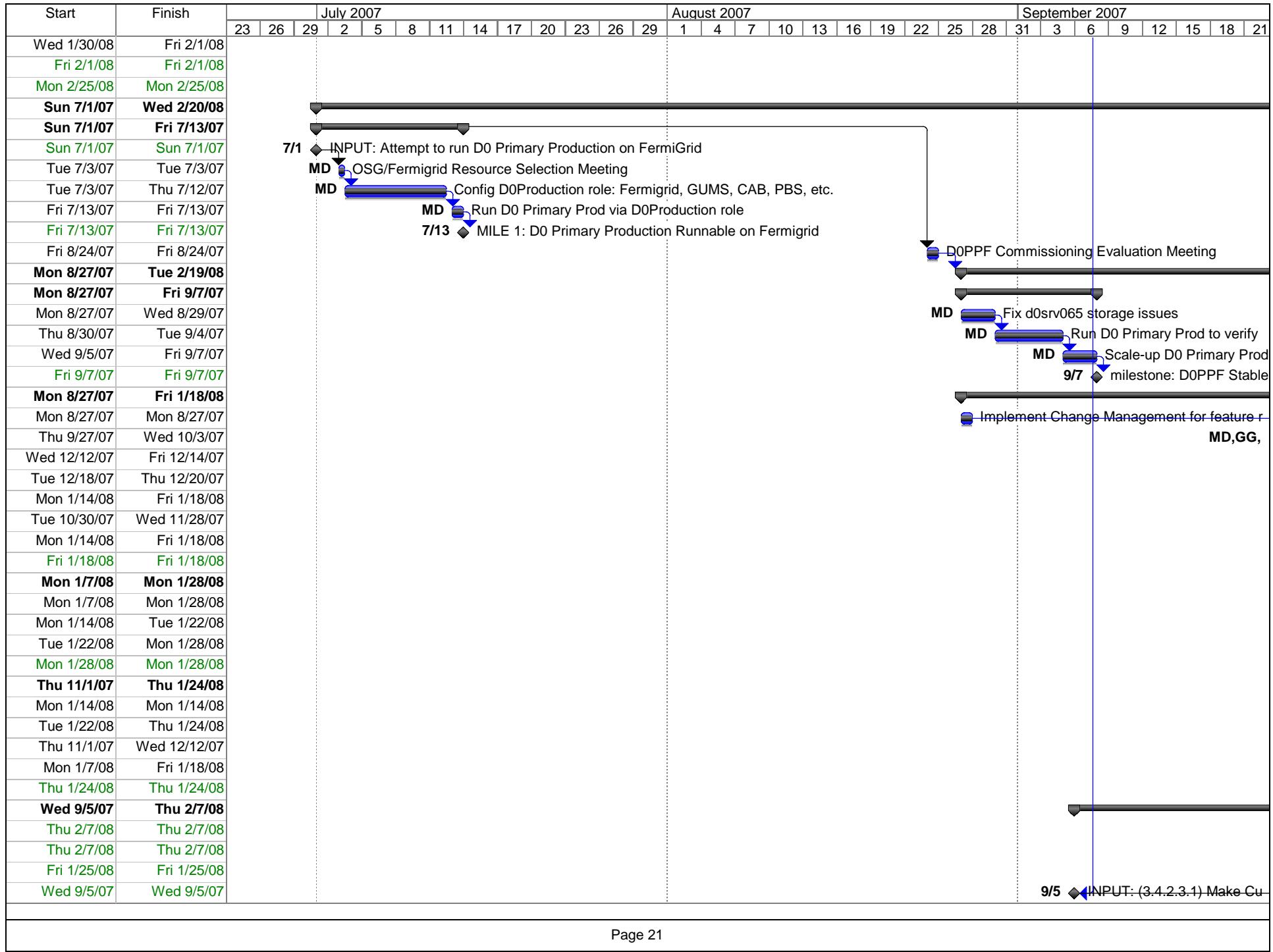










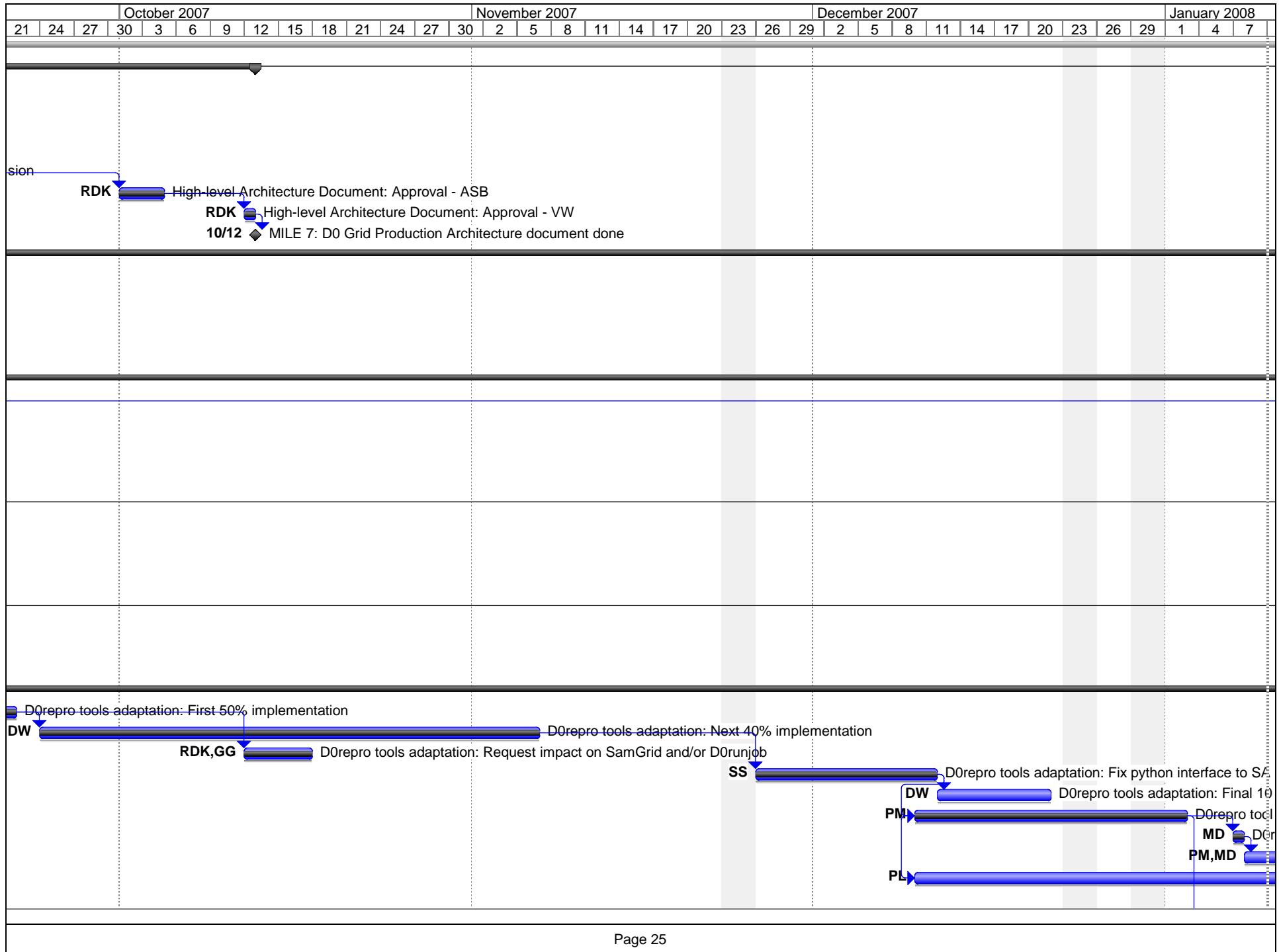


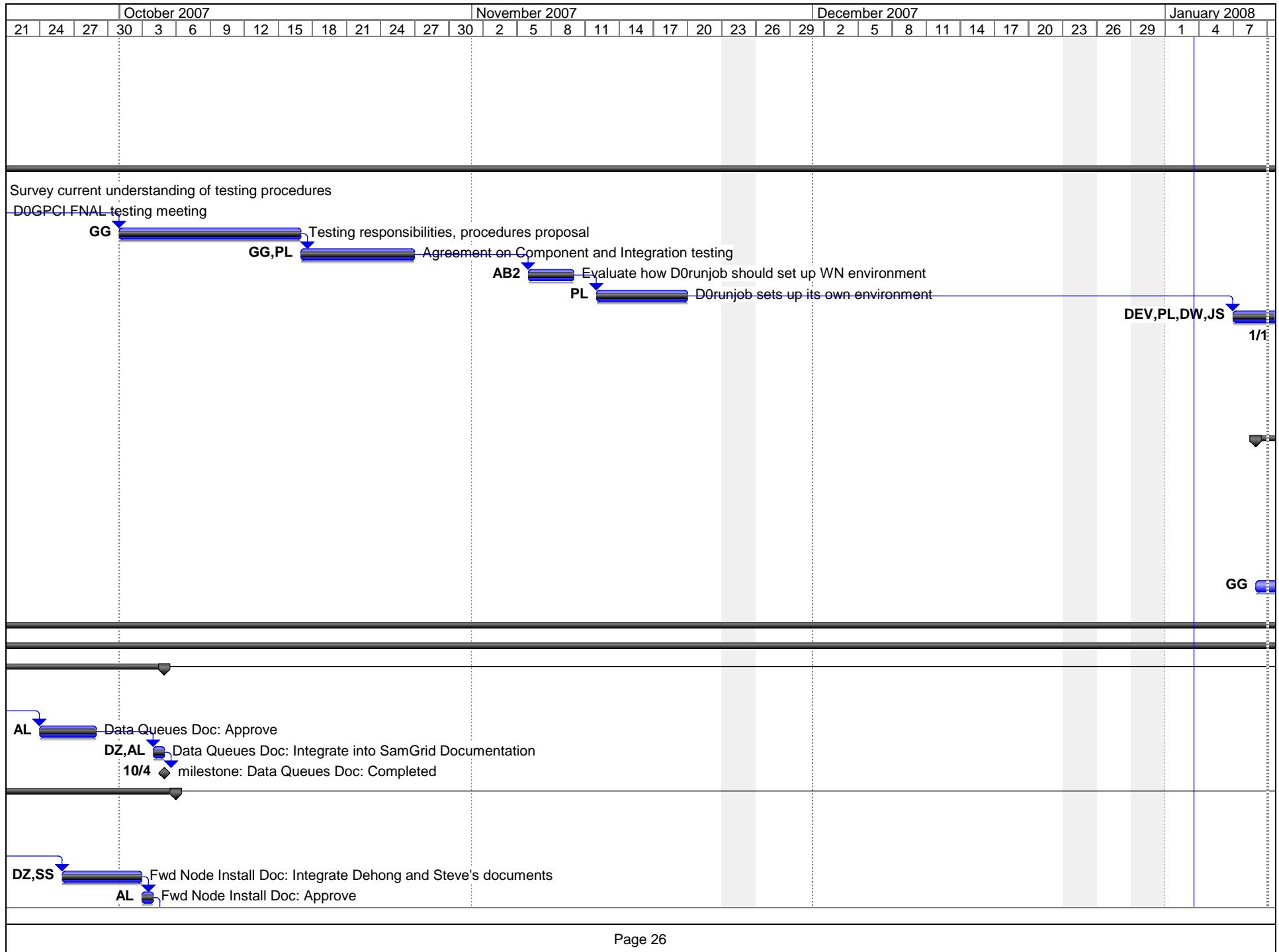


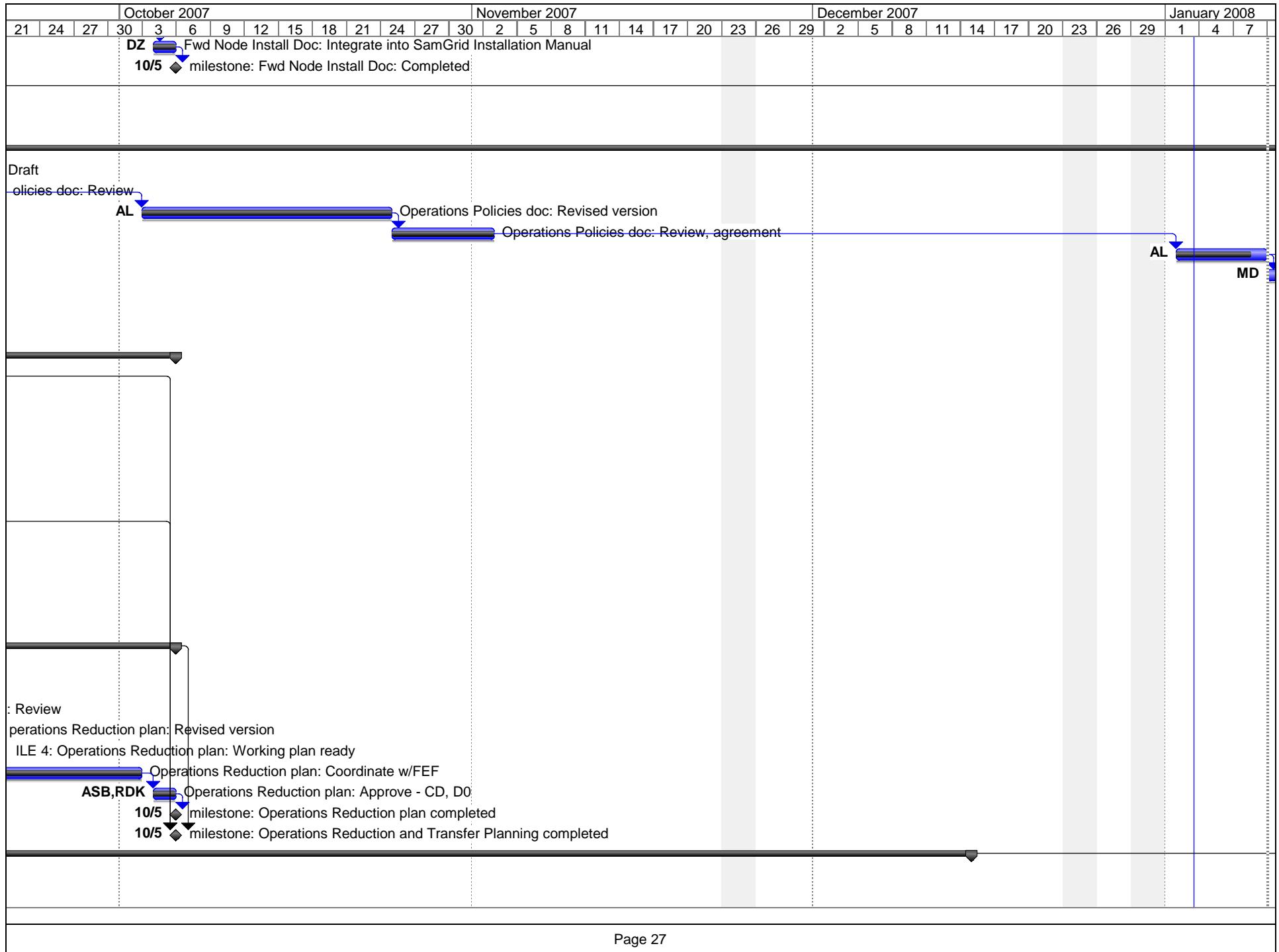


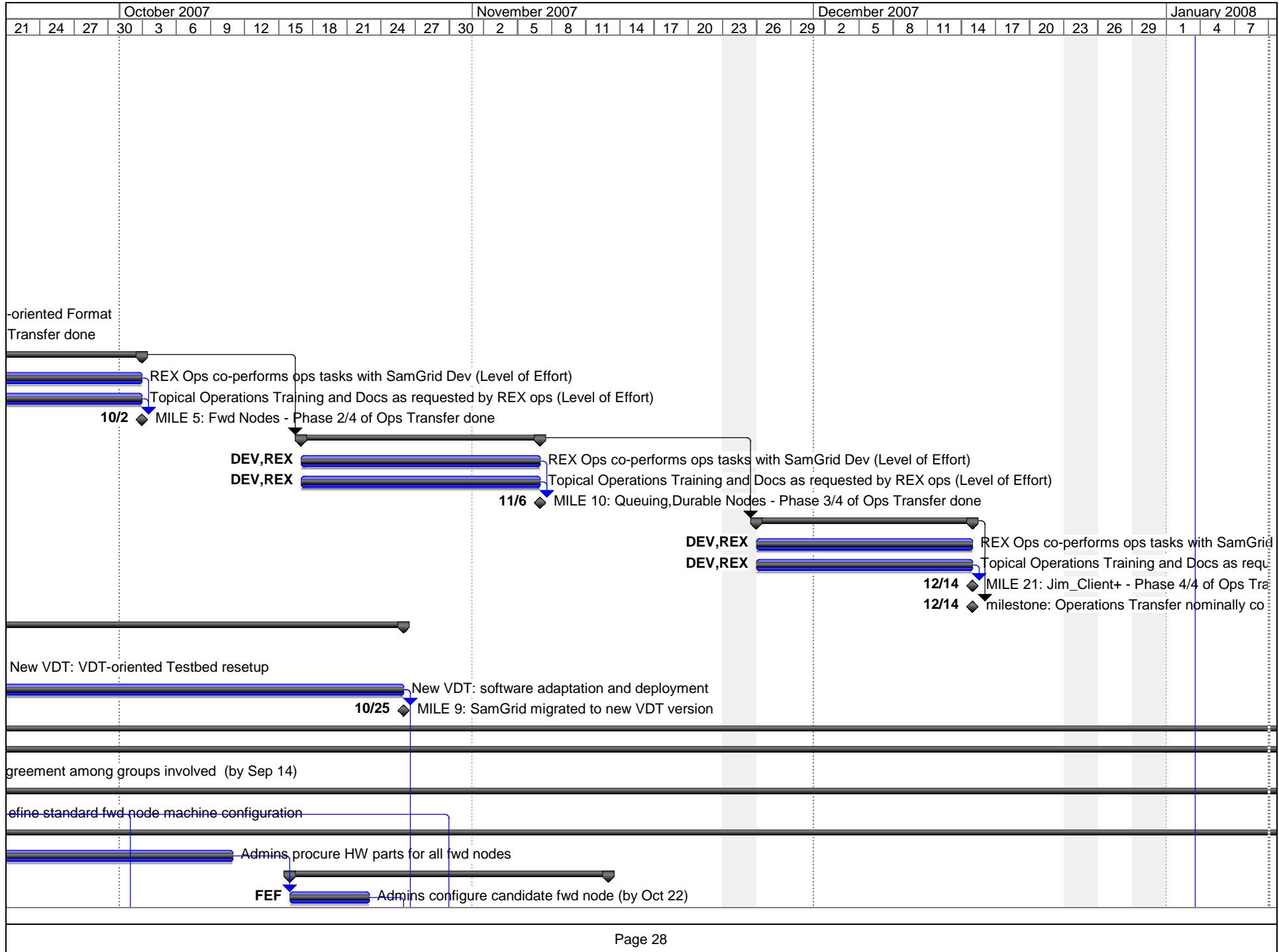
| Start              | Finish             | July 2007 |    |    |   |   |   |    |    |    |    |    |    |    | August 2007 |   |   |    |    |    |    |    | September 2007 |    |    |   |   |   |    |    |    |    |
|--------------------|--------------------|-----------|----|----|---|---|---|----|----|----|----|----|----|----|-------------|---|---|----|----|----|----|----|----------------|----|----|---|---|---|----|----|----|----|
|                    |                    | 23        | 26 | 29 | 2 | 5 | 8 | 11 | 14 | 17 | 20 | 23 | 26 | 29 | 1           | 4 | 7 | 10 | 13 | 16 | 19 | 22 | 25             | 28 | 31 | 3 | 6 | 9 | 12 | 15 | 18 | 21 |
| Thu 10/4/07        | Thu 10/4/07        |           |    |    |   |   |   |    |    |    |    |    |    |    |             |   |   |    |    |    |    |    |                |    |    |   |   |   |    |    |    |    |
| Fri 10/5/07        | Mon 10/8/07        |           |    |    |   |   |   |    |    |    |    |    |    |    |             |   |   |    |    |    |    |    |                |    |    |   |   |   |    |    |    |    |
| Mon 10/8/07        | Mon 10/8/07        |           |    |    |   |   |   |    |    |    |    |    |    |    |             |   |   |    |    |    |    |    |                |    |    |   |   |   |    |    |    |    |
| Tue 10/9/07        | Fri 10/12/07       |           |    |    |   |   |   |    |    |    |    |    |    |    |             |   |   |    |    |    |    |    |                |    |    |   |   |   |    |    |    |    |
| Mon 10/15/07       | Tue 10/16/07       |           |    |    |   |   |   |    |    |    |    |    |    |    |             |   |   |    |    |    |    |    |                |    |    |   |   |   |    |    |    |    |
| Wed 10/17/07       | Thu 10/18/07       |           |    |    |   |   |   |    |    |    |    |    |    |    |             |   |   |    |    |    |    |    |                |    |    |   |   |   |    |    |    |    |
| Tue 10/23/07       | Tue 10/23/07       |           |    |    |   |   |   |    |    |    |    |    |    |    |             |   |   |    |    |    |    |    |                |    |    |   |   |   |    |    |    |    |
| <b>Wed 7/18/07</b> | <b>Thu 1/31/08</b> |           |    |    |   |   |   |    |    |    |    |    |    |    |             |   |   |    |    |    |    |    |                |    |    |   |   |   |    |    |    |    |
| Wed 7/18/07        | Mon 10/8/07        |           |    |    |   |   |   |    |    |    |    |    |    |    |             |   |   |    |    |    |    |    |                |    |    |   |   |   |    |    |    |    |
| Tue 10/9/07        | Thu 1/31/08        |           |    |    |   |   |   |    |    |    |    |    |    |    |             |   |   |    |    |    |    |    |                |    |    |   |   |   |    |    |    |    |
| <b>Tue 2/26/08</b> | <b>Wed 3/5/08</b>  |           |    |    |   |   |   |    |    |    |    |    |    |    |             |   |   |    |    |    |    |    |                |    |    |   |   |   |    |    |    |    |
| Tue 2/26/08        | Tue 2/26/08        |           |    |    |   |   |   |    |    |    |    |    |    |    |             |   |   |    |    |    |    |    |                |    |    |   |   |   |    |    |    |    |
| Wed 2/27/08        | Thu 2/28/08        |           |    |    |   |   |   |    |    |    |    |    |    |    |             |   |   |    |    |    |    |    |                |    |    |   |   |   |    |    |    |    |
| Fri 2/29/08        | Tue 3/4/08         |           |    |    |   |   |   |    |    |    |    |    |    |    |             |   |   |    |    |    |    |    |                |    |    |   |   |   |    |    |    |    |
| Wed 3/5/08         | Wed 3/5/08         |           |    |    |   |   |   |    |    |    |    |    |    |    |             |   |   |    |    |    |    |    |                |    |    |   |   |   |    |    |    |    |
| <b>Wed 3/5/08</b>  | <b>Wed 3/5/08</b>  |           |    |    |   |   |   |    |    |    |    |    |    |    |             |   |   |    |    |    |    |    |                |    |    |   |   |   |    |    |    |    |
| <b>Wed 3/5/08</b>  | <b>Wed 3/5/08</b>  |           |    |    |   |   |   |    |    |    |    |    |    |    |             |   |   |    |    |    |    |    |                |    |    |   |   |   |    |    |    |    |

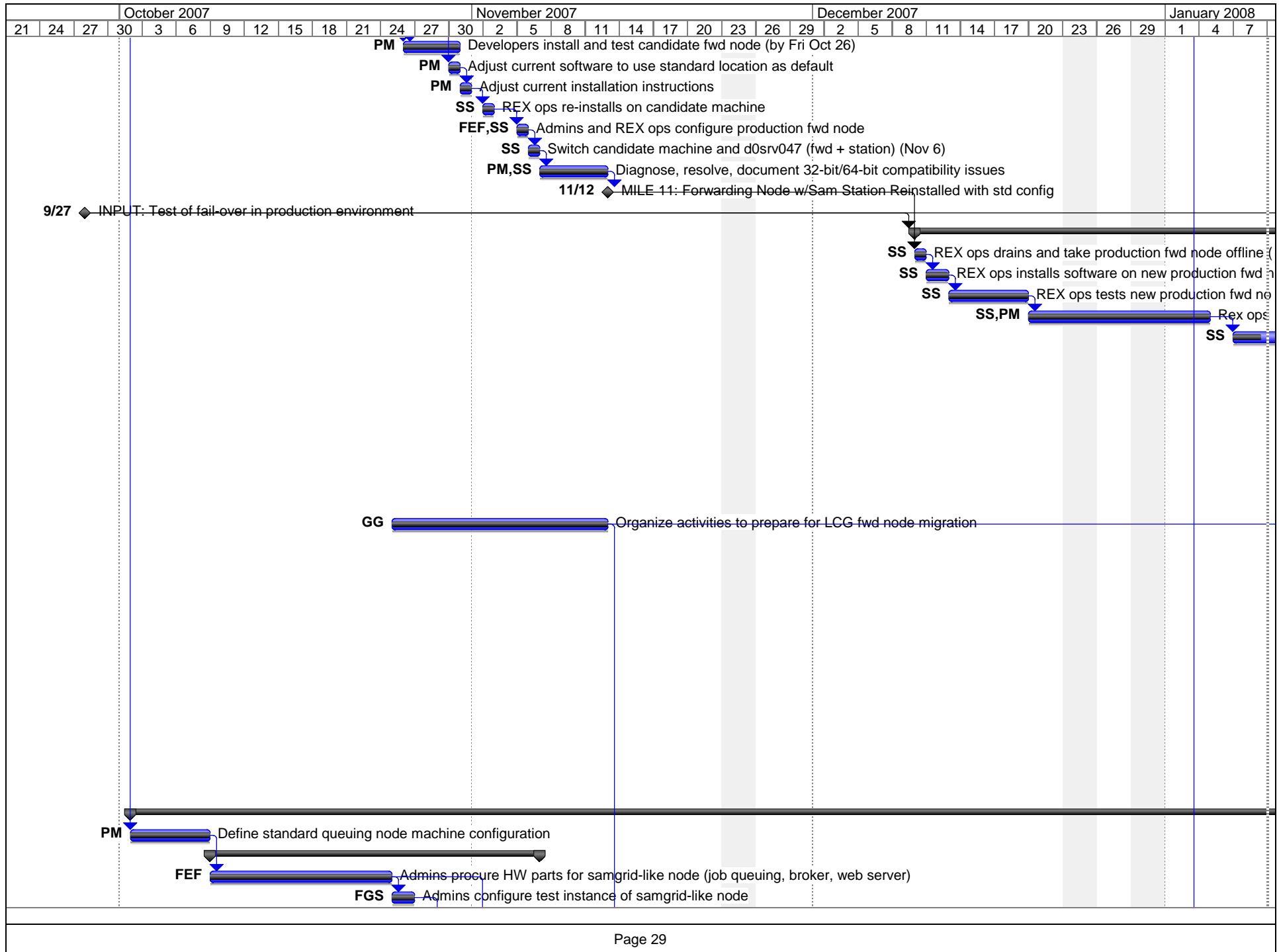
RDK

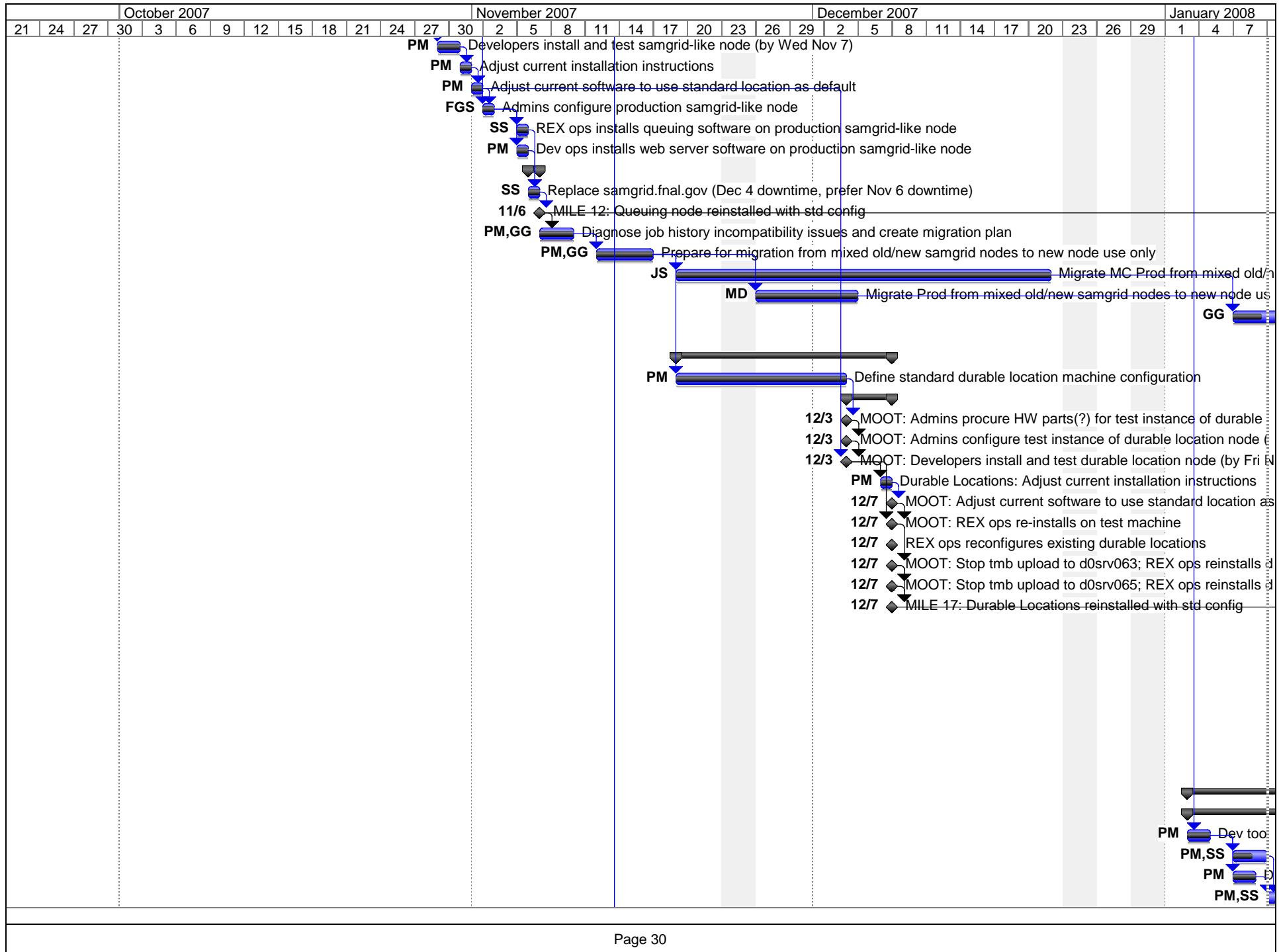


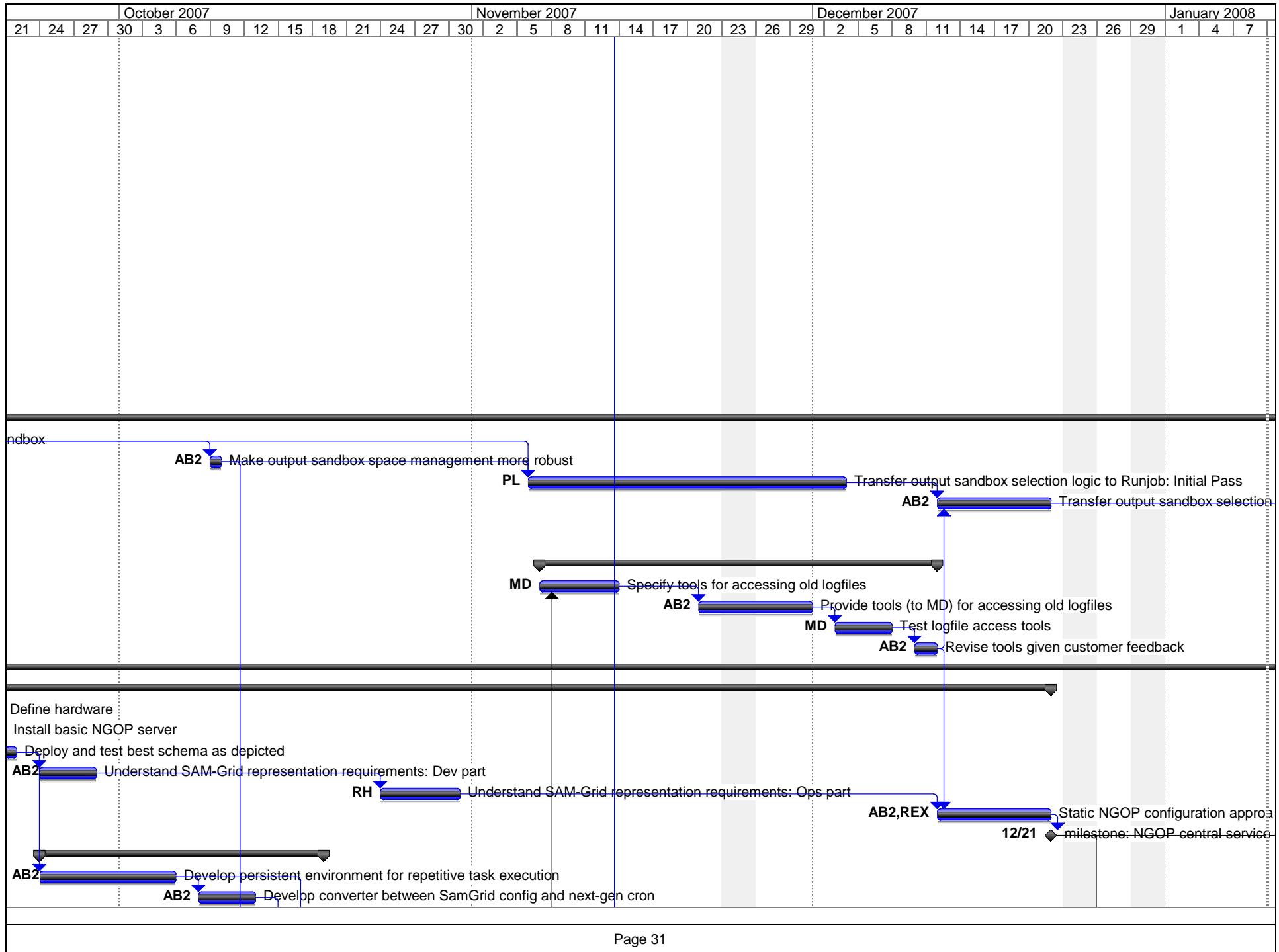


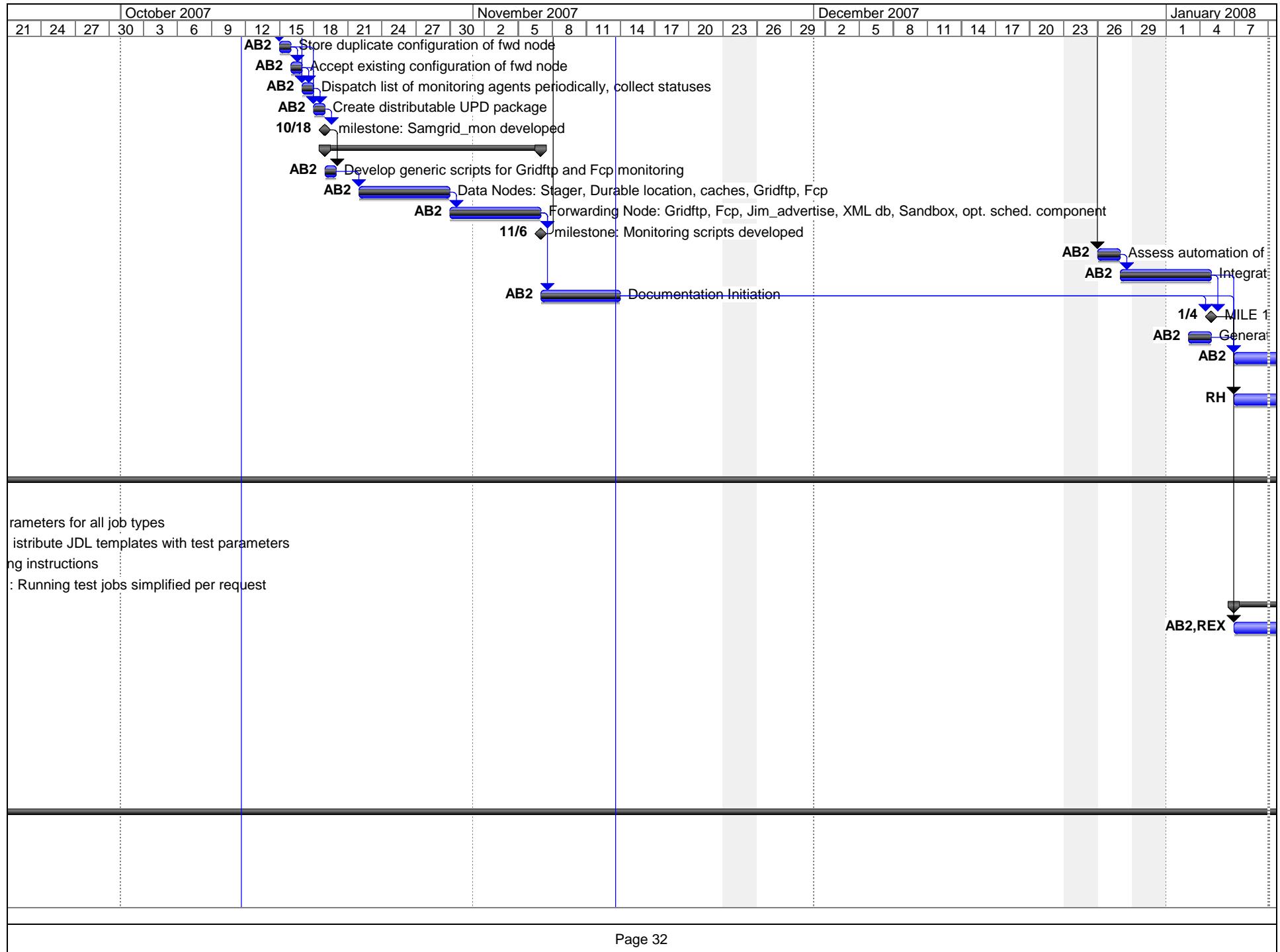




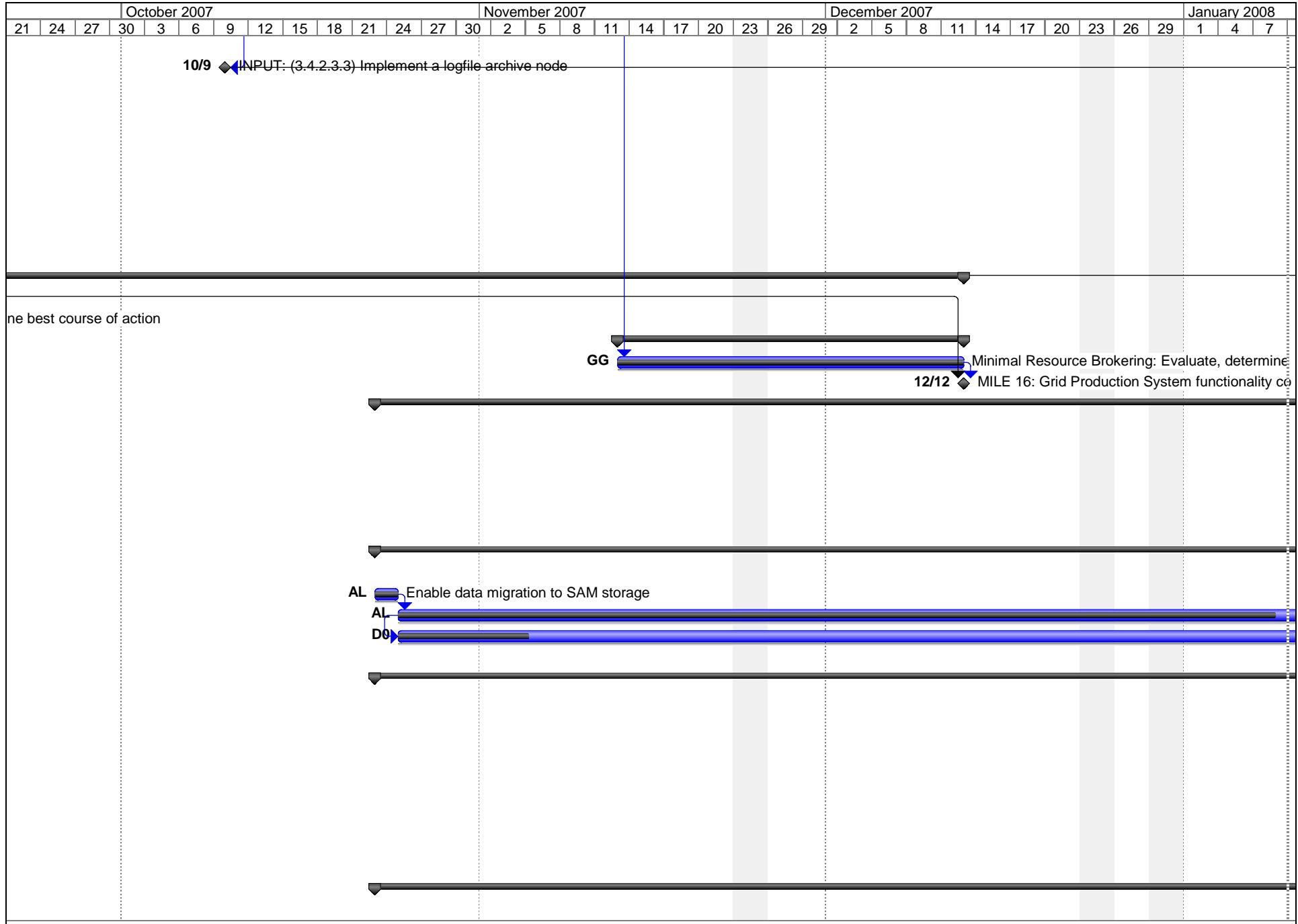


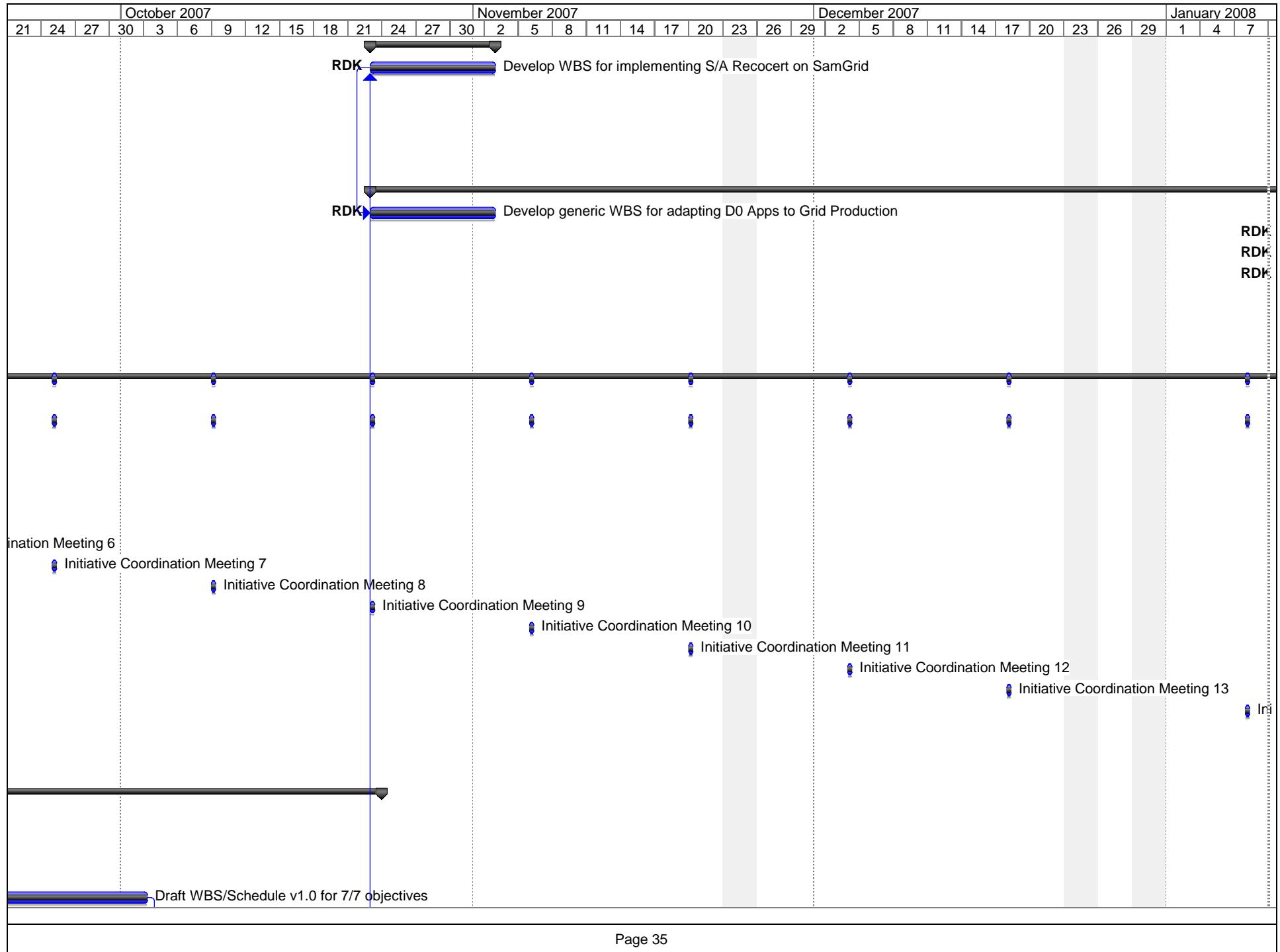


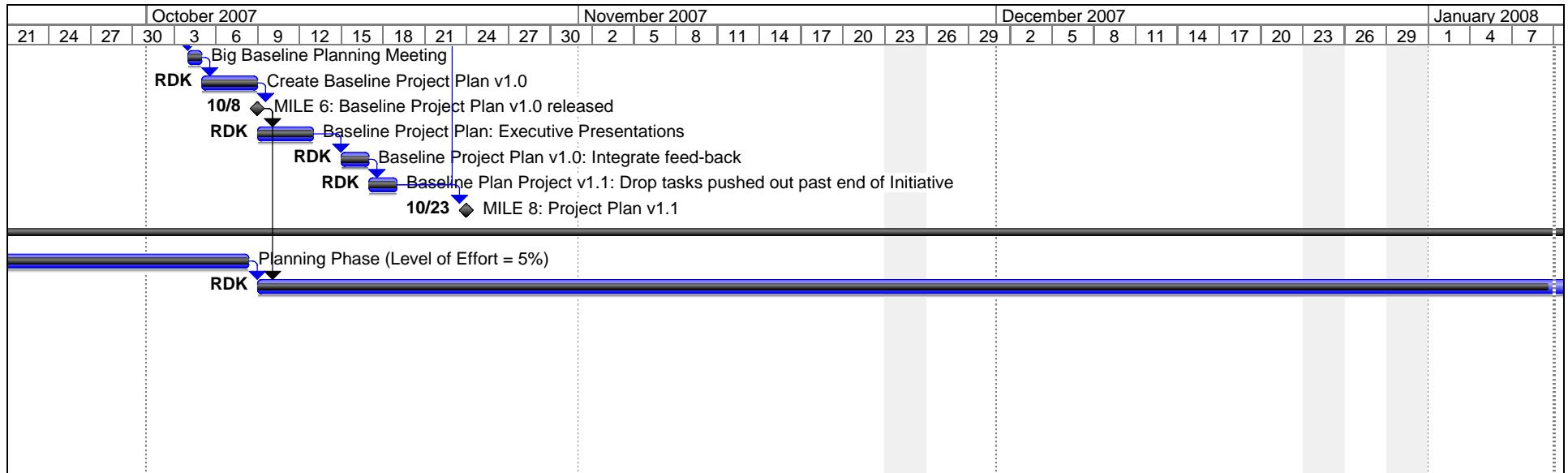


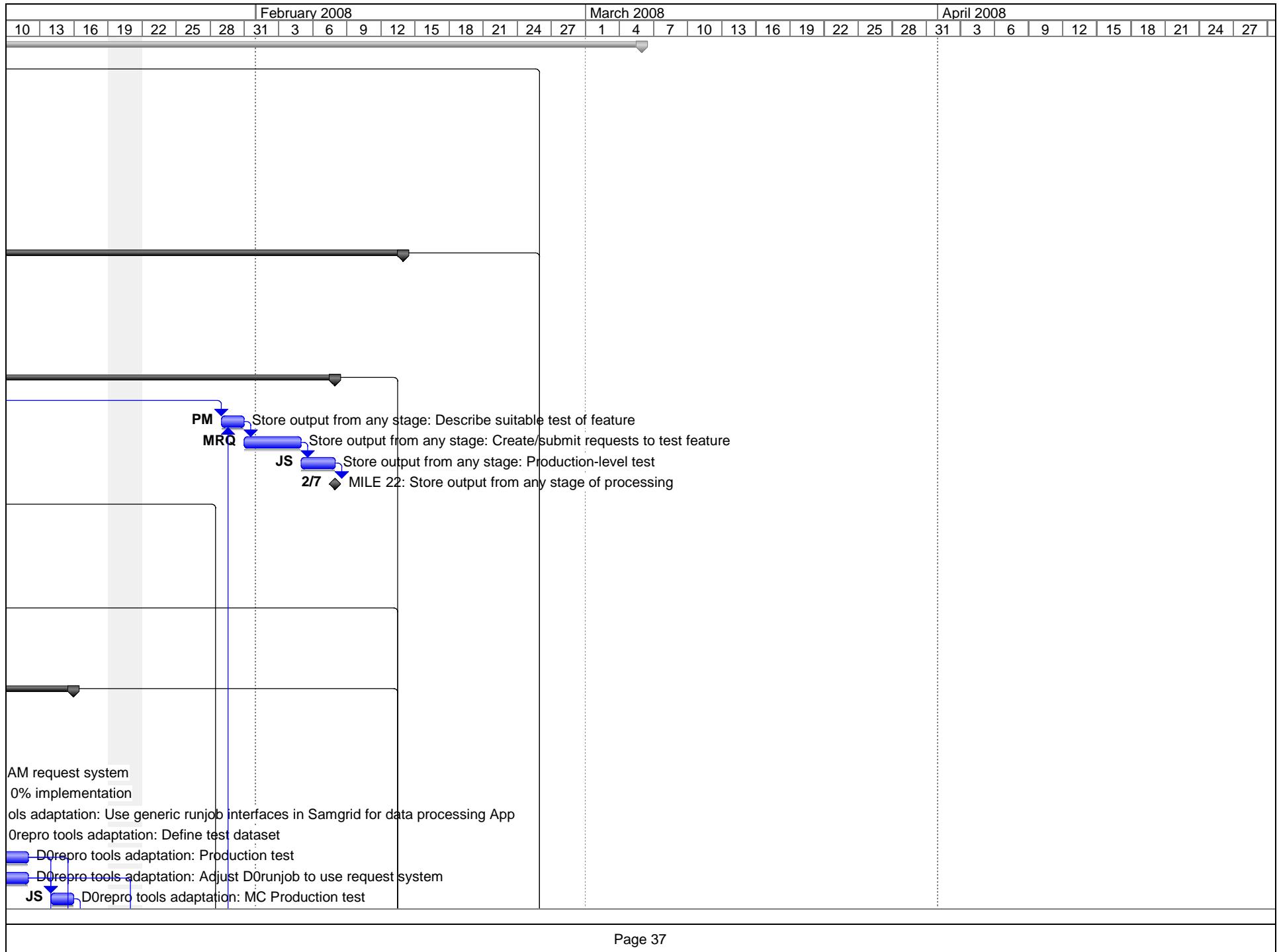


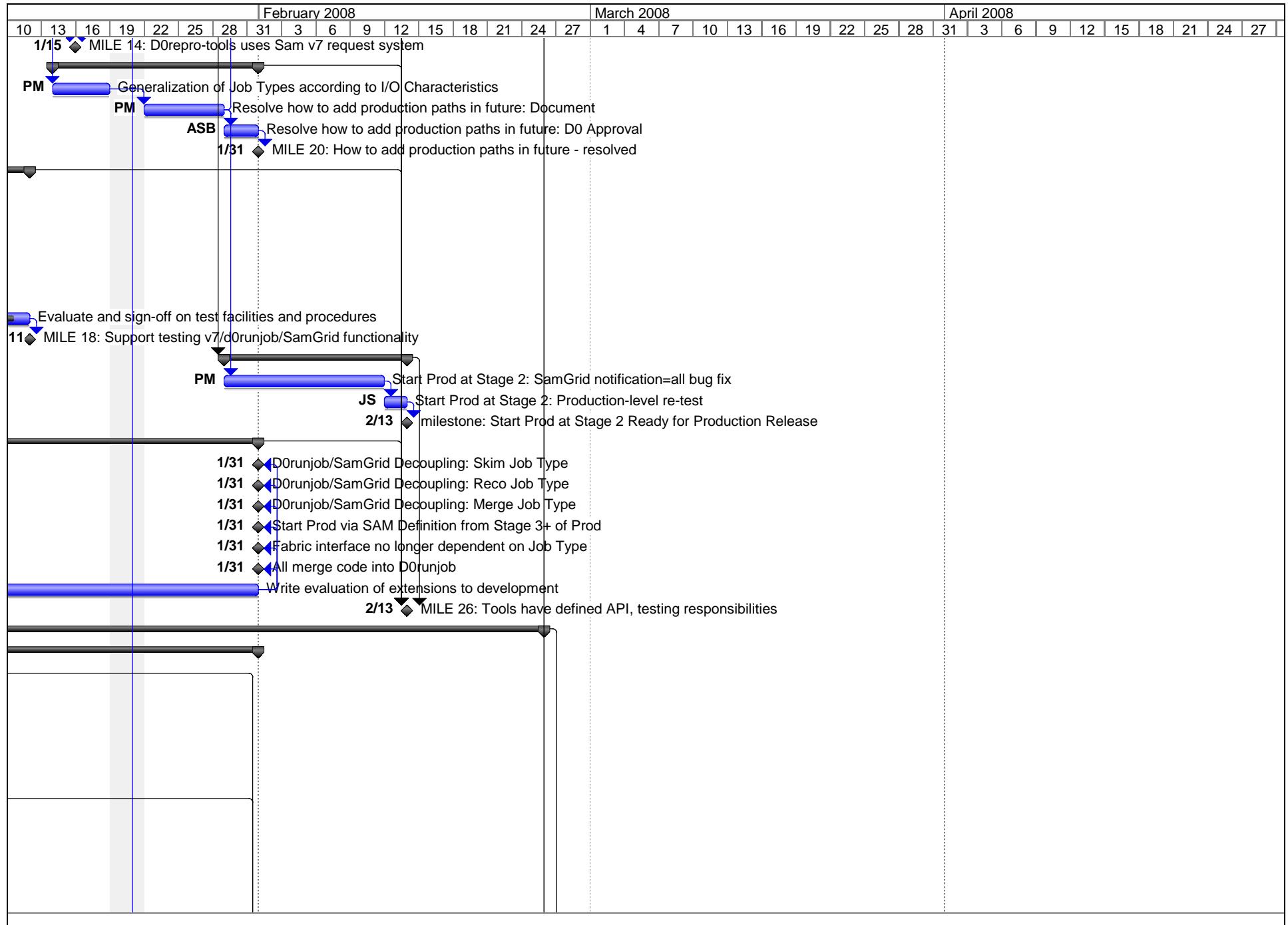
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|---|---|-----------|-----|---------|---|---|---|---------------|----|----|----|----|----|----|---------------|---|---|----|----|----|----|--------------|----|----|---|---|---|----|----|----|----|----|----|----|---|---|---|
|   | 21  | 24        | 27  | 30      | 3 | 6 | 9 | 12            | 15 | 18 | 21 | 24 | 27 | 30 | 2             | 5 | 8 | 11 | 14 | 17 | 20 | 23           | 26 | 29 | 2 | 5 | 8 | 11 | 14 | 17 | 20 | 23 | 26 | 29 | 1 | 4 | 7 |
| rify storage fix<br>Prod to 200 nodes<br>table Ops: Commissioning follow-up completed |   |           |     |         |   |   |   |               |    |    |    |    |    |    |               |   |   |    |    |    |    |              |    |    |   |   |   |    |    |    |    |    |    |    |   |   |   |
| re requests using SAM IssueTracker  |   |           |     |         |   |   |   |               |    |    |    |    |    |    |               |   |   |    |    |    |    |              |    |    |   |   |   |    |    |    |    |    |    |    |   |   |   |
| G,PM,JS   | Establish service level for stable operations and implications on system config | MD,GG,FEF | RDK | RDK,AB2 |   |   |   |               |    |    |    |    |    |    |               |   |   |    |    |    |    |              |    |    |   |   |   |    |    |    |    |    |    |    |   |   |   |
|   |   |           |     |         |   |   |   |               |    |    |    |    |    |    |               |   |   |    |    |    |    |              |    |    |   |   |   |    |    |    |    |    |    |    |   |   |   |
|   |   |           |     |         |   |   |   |               |    |    |    |    |    |    |               |   |   |    |    |    |    |              |    |    |   |   |   |    |    |    |    |    |    |    |   |   |   |
| Custom output support smarter, use compression  |   |           |     |         |   |   |   |               |    |    |    |    |    |    |               |   |   |    |    |    |    |              |    |    |   |   |   |    |    |    |    |    |    |    |   |   |   |

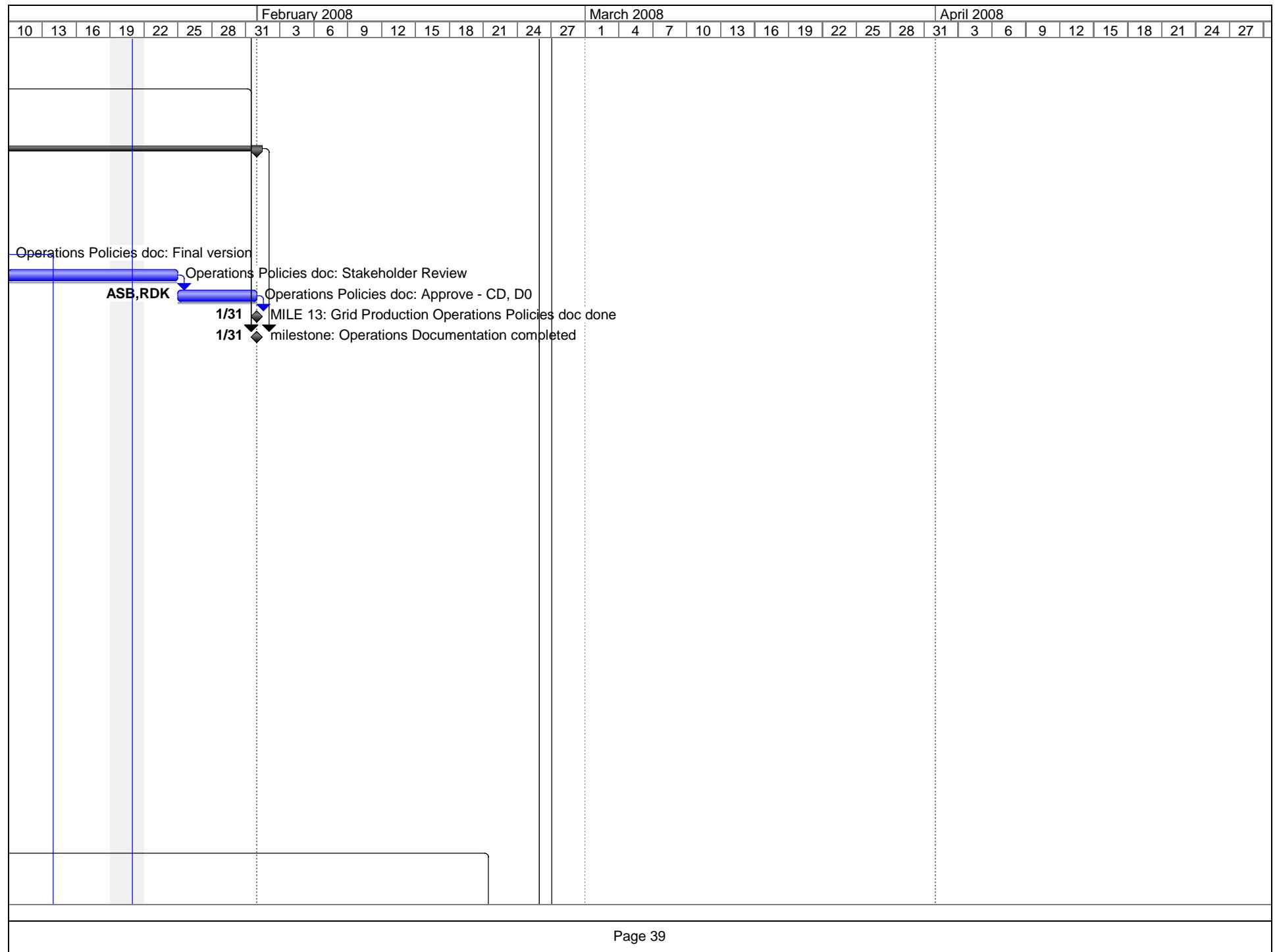


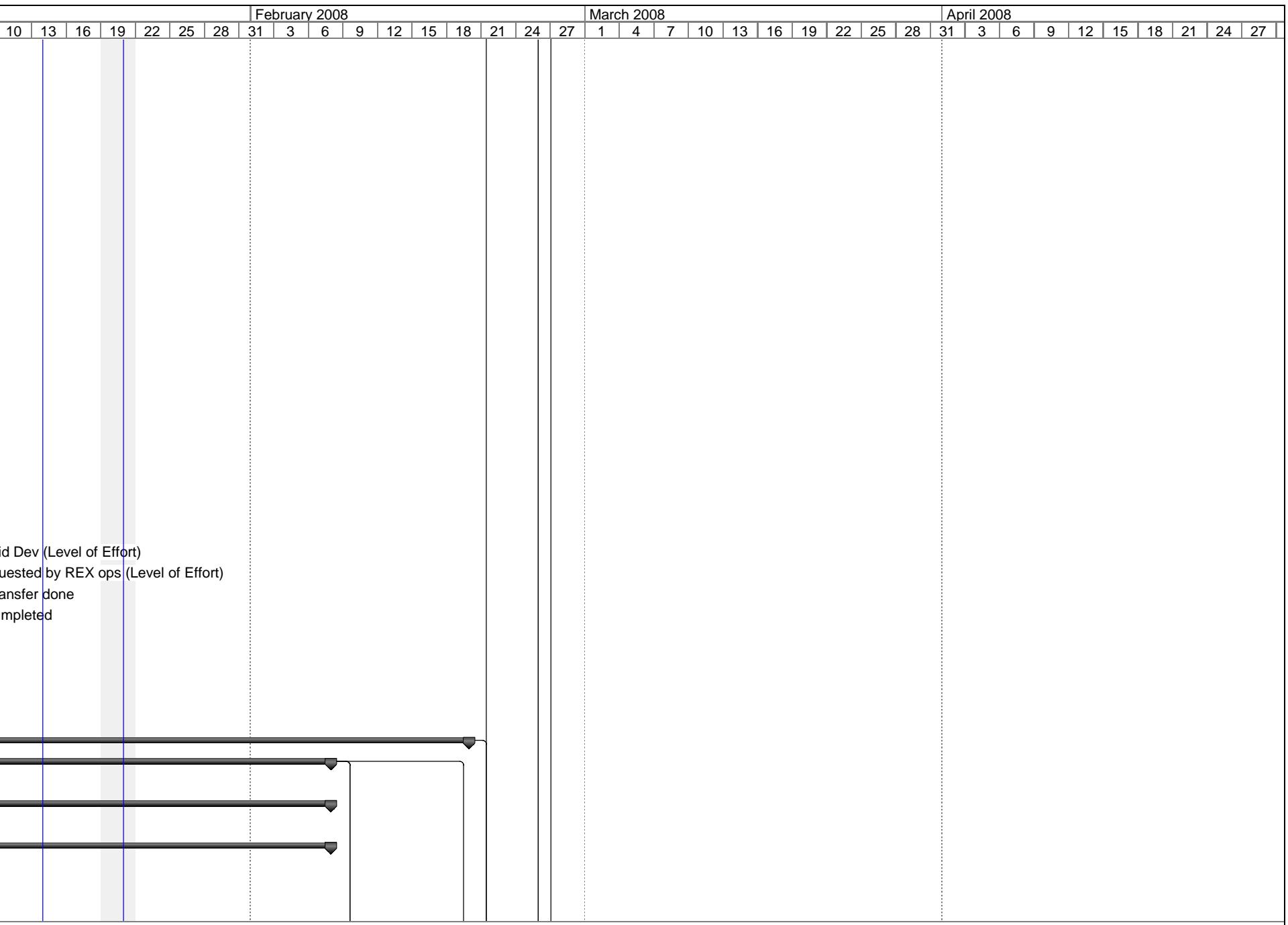


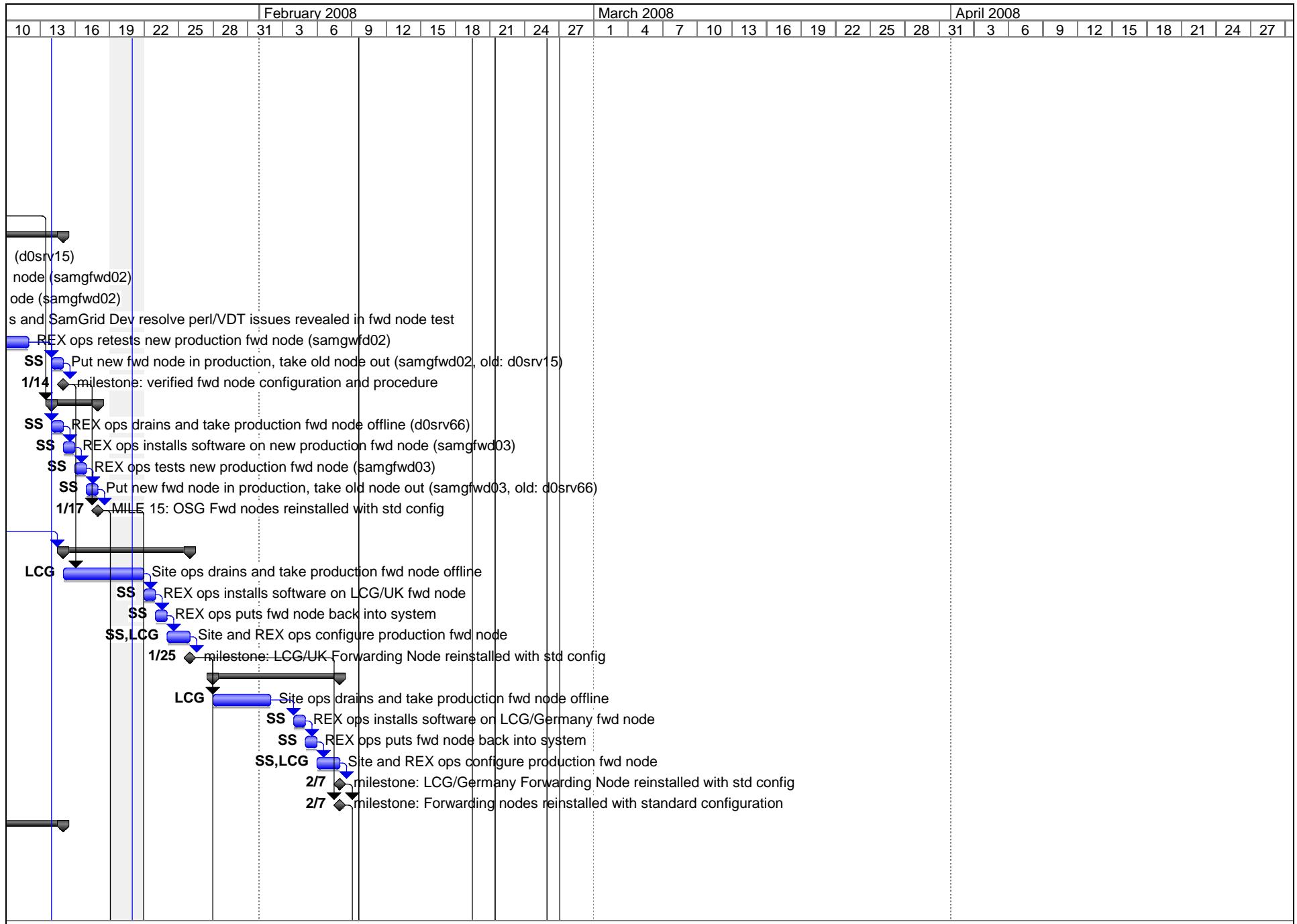


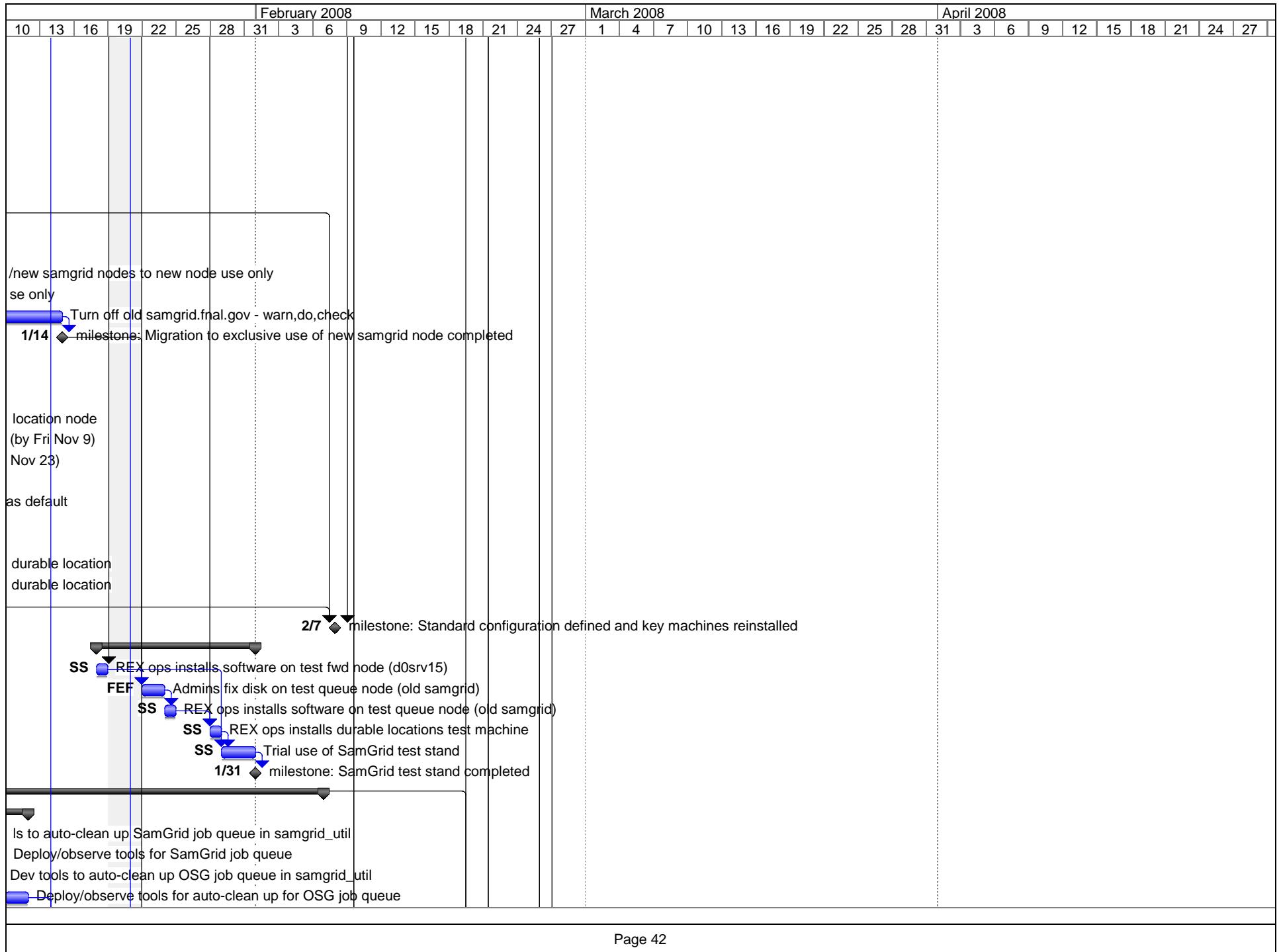


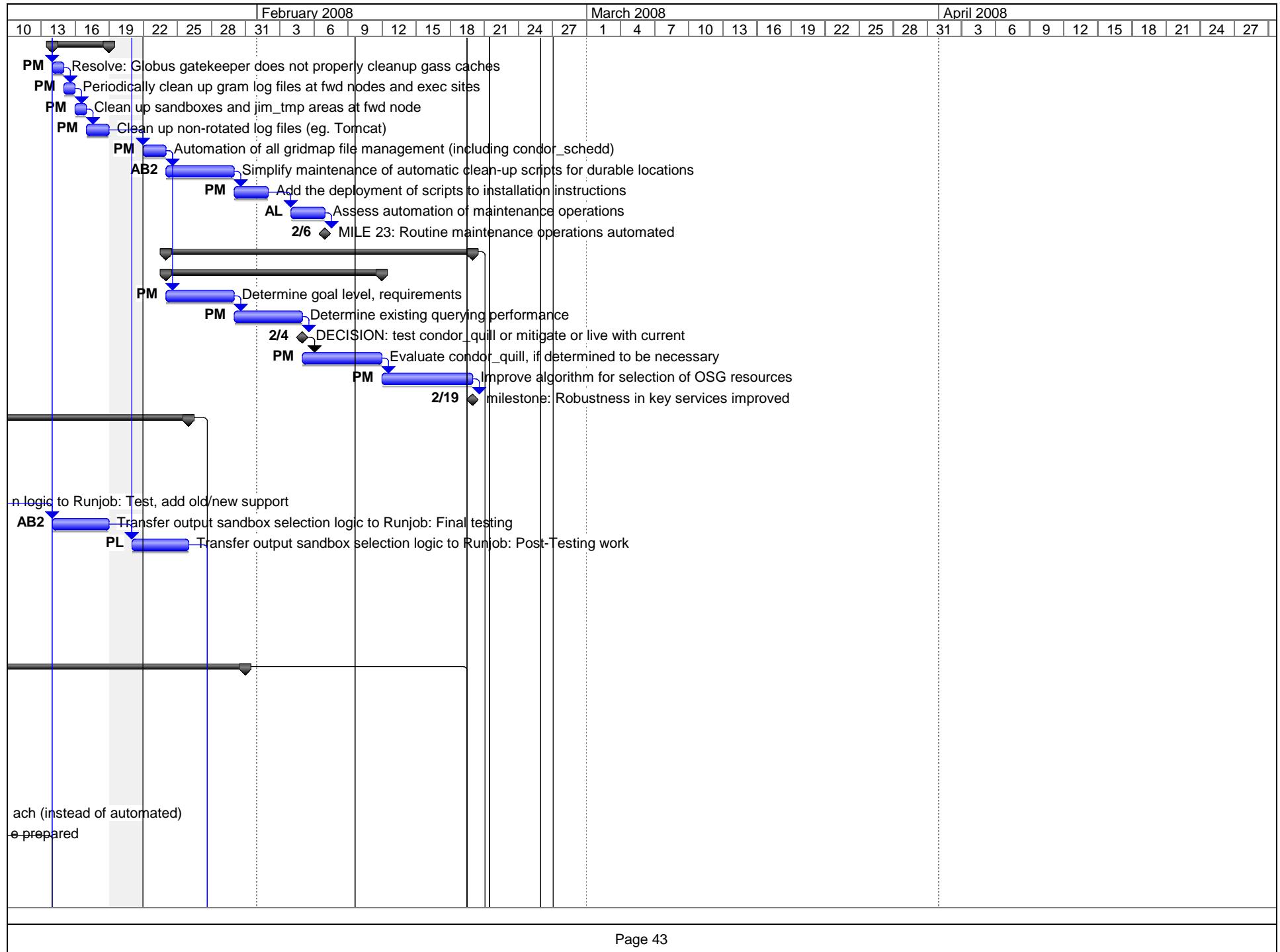


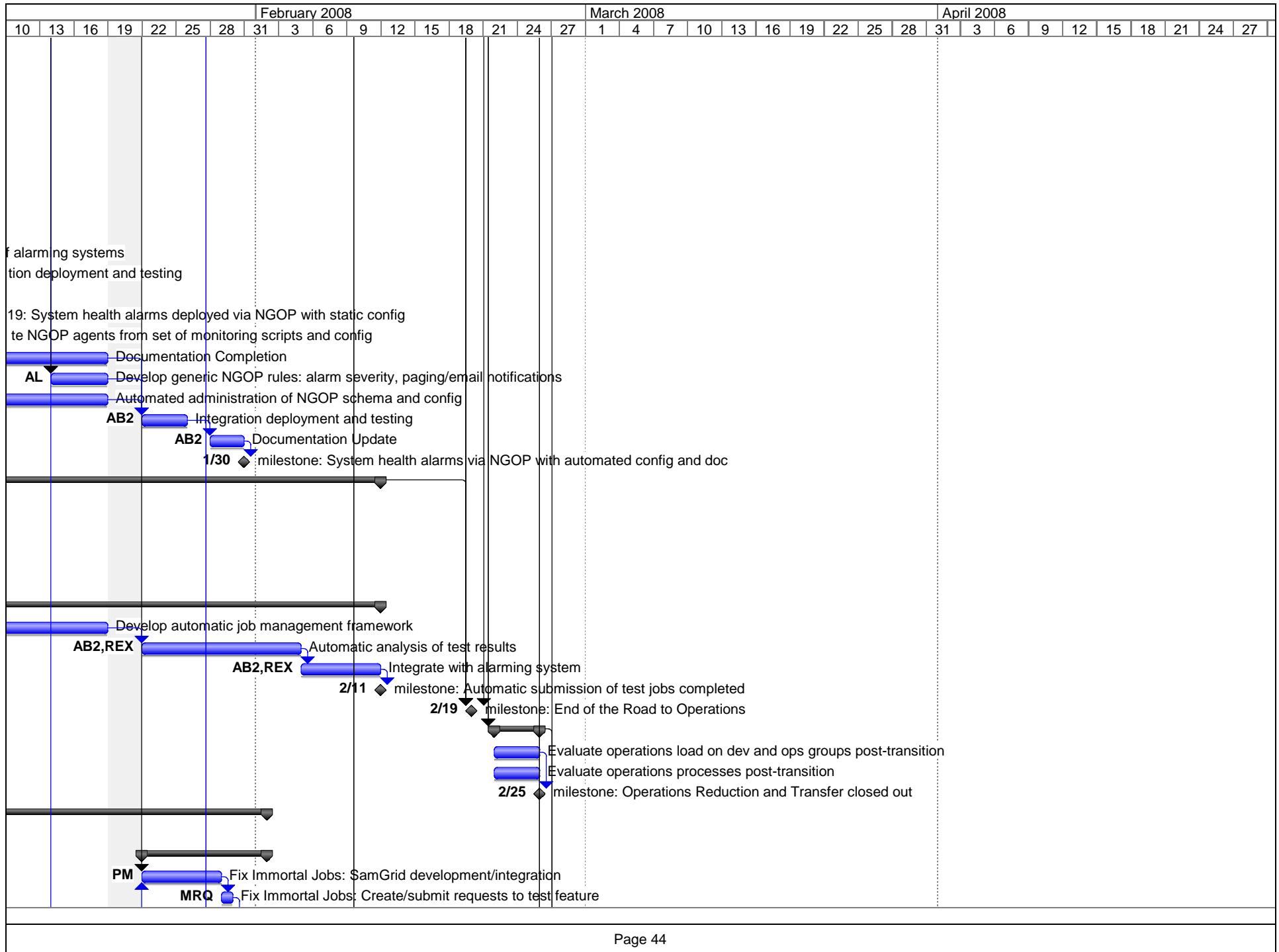


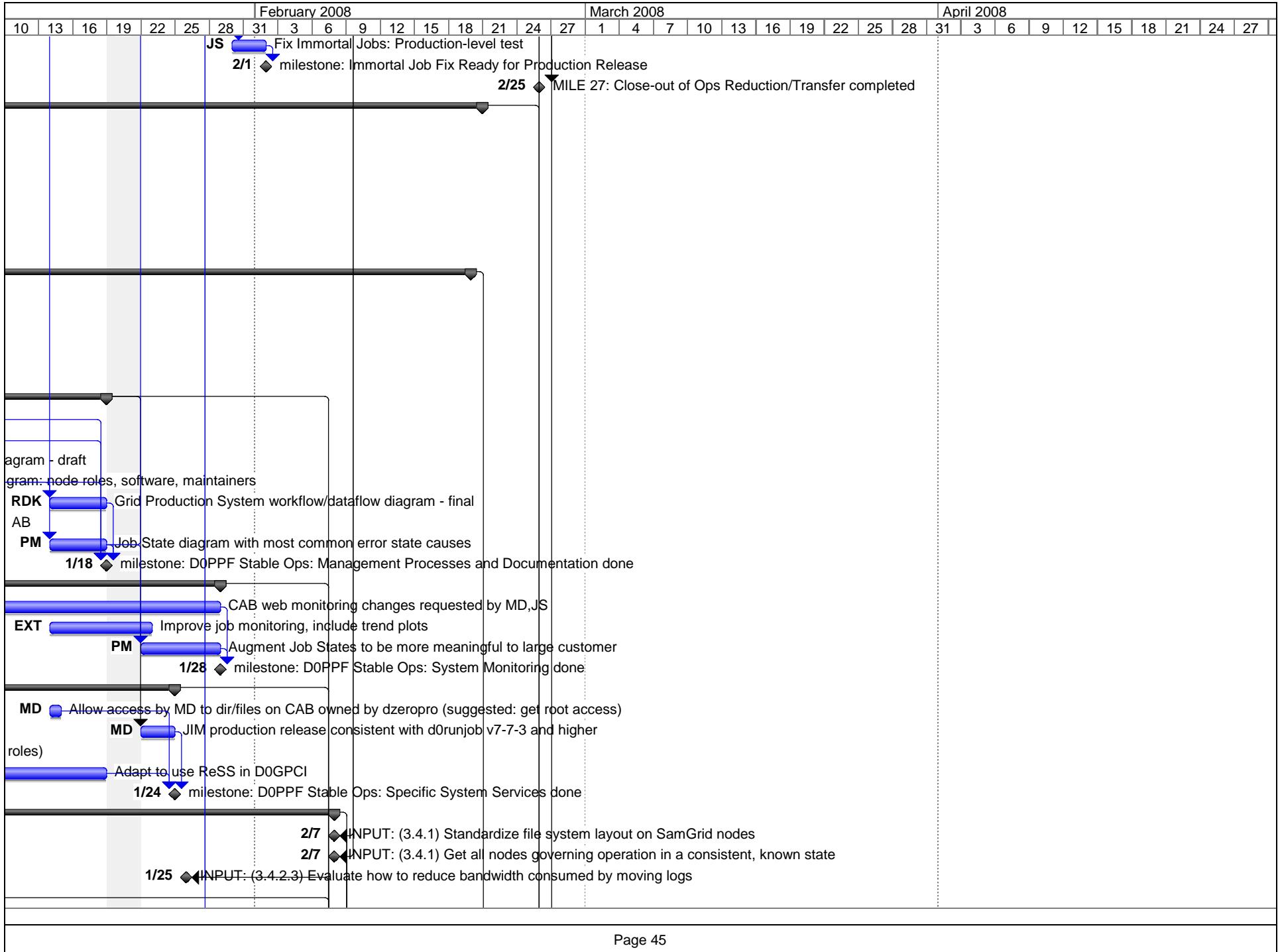
| February 2008  |    |    |    |    |    |    |    |   |   |   |    | March 2008 |    |    |    |    |   |   |   |    |    |    |    | April 2008 |    |    |    |   |   |   |    |    |    |    |    |    |  |  |  |
|--|----|----|----|----|----|----|----|---|---|---|----|------------|----|----|----|----|---|---|---|----|----|----|----|------------|----|----|----|---|---|---|----|----|----|----|----|----|--|--|--|
| 10   | 13 | 16 | 19 | 22 | 25 | 28 | 31 | 3 | 6 | 9 | 12 | 15         | 18 | 21 | 24 | 27 | 1 | 4 | 7 | 10 | 13 | 16 | 19 | 22         | 25 | 28 | 31 | 3 | 6 | 9 | 12 | 15 | 18 | 21 | 24 | 27 |  |  |  |
| id Dev (Level of Effort)   |    |    |    |    |    |    |    |   |   |   |    |            |    |    |    |    |   |   |   |    |    |    |    |            |    |    |    |   |   |   |    |    |    |    |    |    |  |  |  |
| uested by REX ops (Level of Effort)  |    |    |    |    |    |    |    |   |   |   |    |            |    |    |    |    |   |   |   |    |    |    |    |            |    |    |    |   |   |   |    |    |    |    |    |    |  |  |  |
| ansfer done  |    |    |    |    |    |    |    |   |   |   |    |            |    |    |    |    |   |   |   |    |    |    |    |            |    |    |    |   |   |   |    |    |    |    |    |    |  |  |  |
| mpleted  |    |    |    |    |    |    |    |   |   |   |    |            |    |    |    |    |   |   |   |    |    |    |    |            |    |    |    |   |   |   |    |    |    |    |    |    |  |  |  |
|  |    |    |    |    |    |    |    |   |   |   |    |            |    |    |    |    |   |   |   |    |    |    |    |            |    |    |    |   |   |   |    |    |    |    |    |    |  |  |  |
| Page 40  |    |    |    |    |    |    |    |   |   |   |    |            |    |    |    |    |   |   |   |    |    |    |    |            |    |    |    |   |   |   |    |    |    |    |    |    |  |  |  |

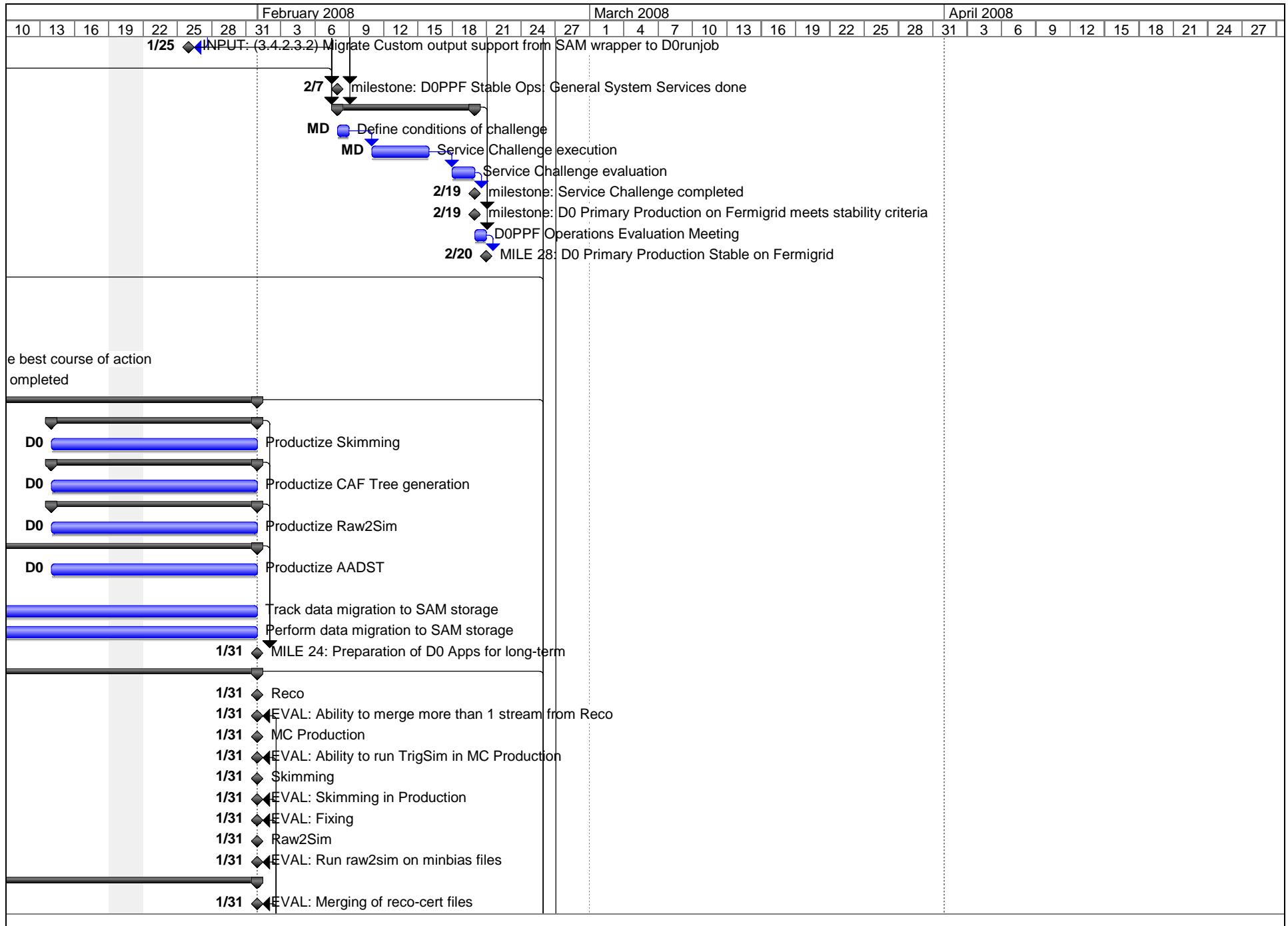


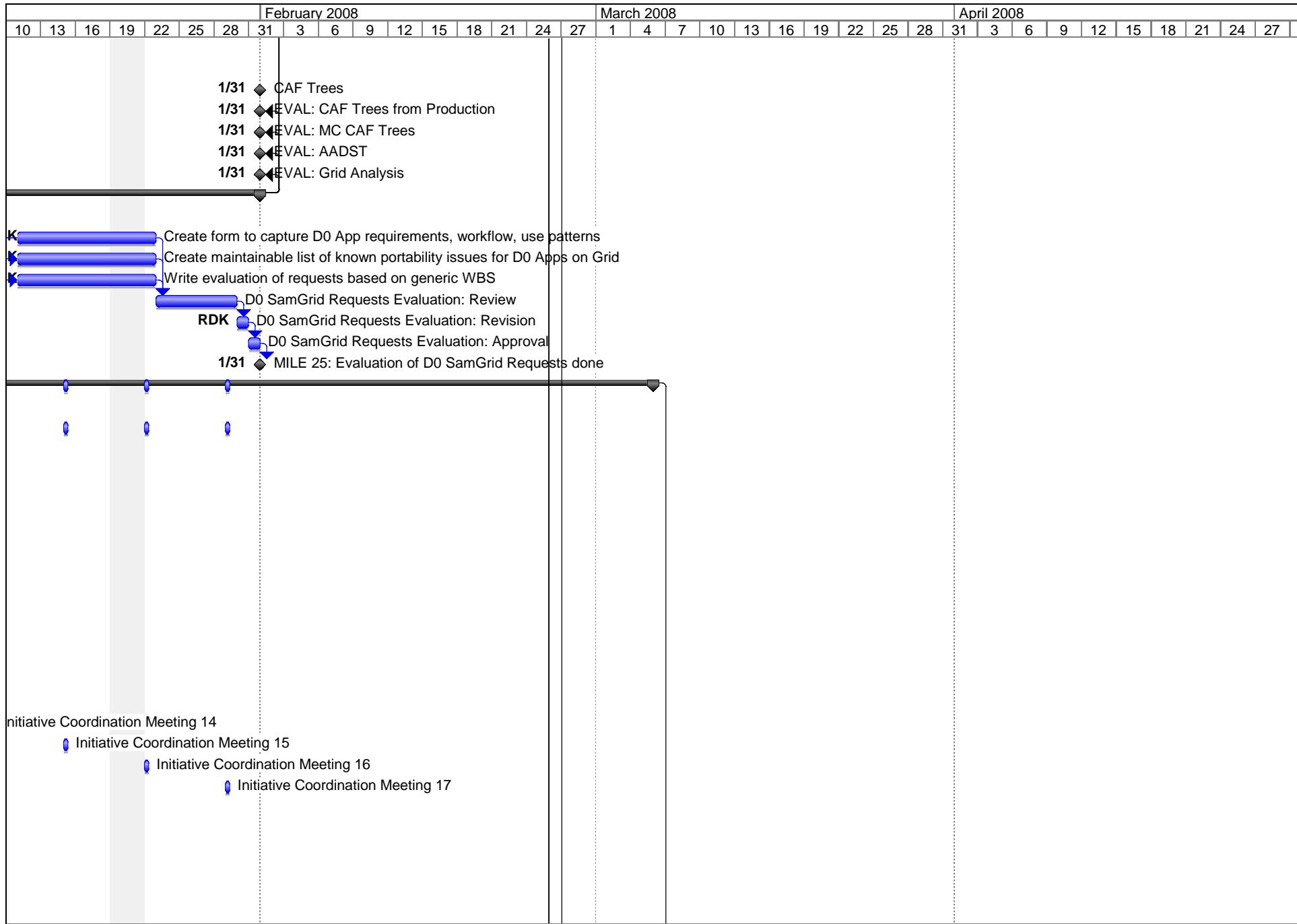


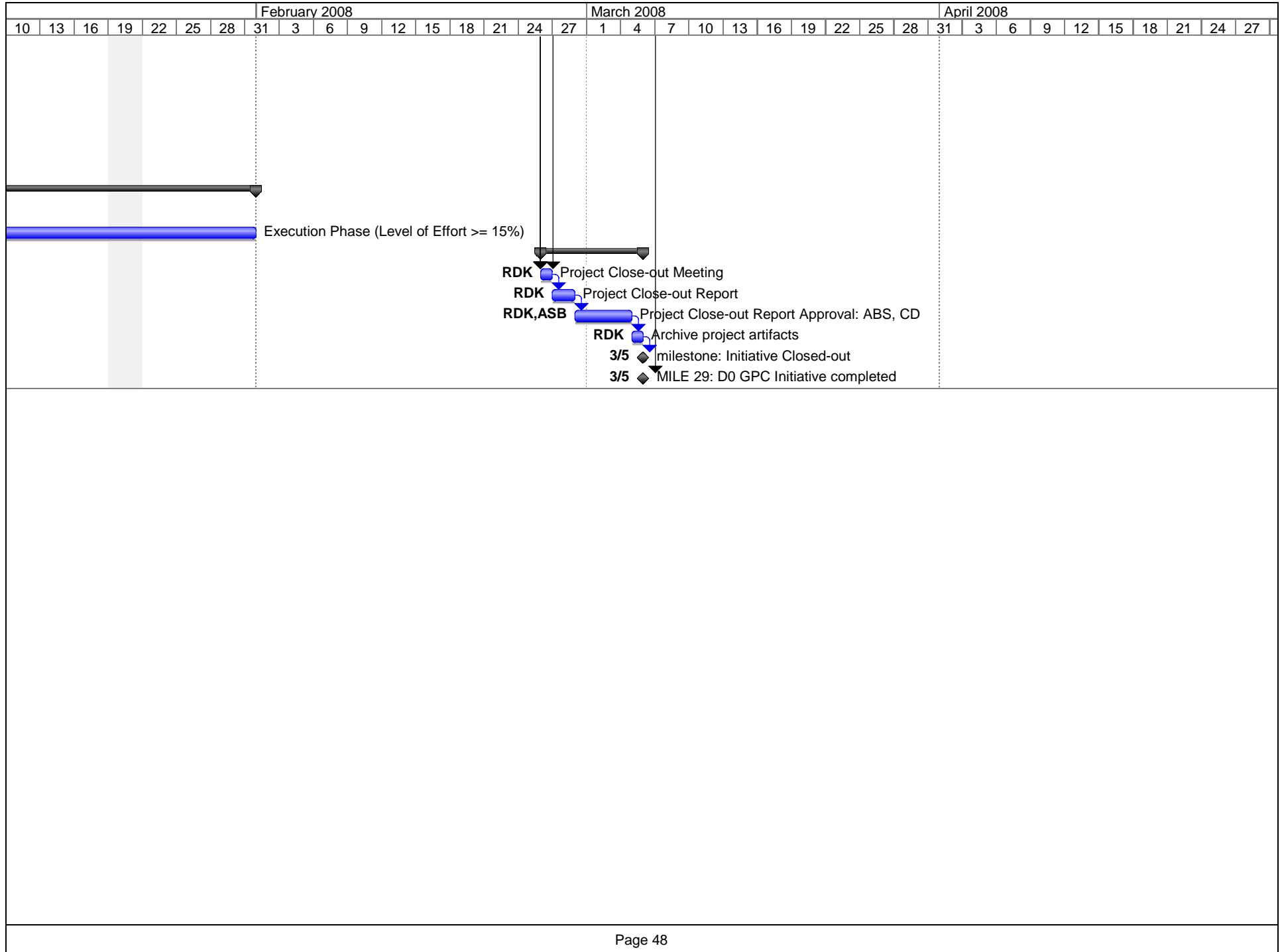












|  |          |   |                 |   |                    |   |
|--|----------|---|-----------------|---|--------------------|---|
| Project: D0 Grid Production Computing<br>Date: Thu 1/10/08 | Task     |  | Milestone       |  | External Tasks     |  |
|  | Split    |  | Summary         |  | External Milestone |  |
|  | Progress |  | Project Summary |  | Deadline           |  |